



Minnesota Industrial Hemp Plan

November 06, 2023 - Revision

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

www.mda.state.mn.us

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](#) Page 3

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

[Hemp Statutes and Administrative Rules](#) Page 4

[Industrial Hemp Development Act](#)

[Minnesota Statute Chapter 18K](#) provides a State authorization for the Department to regulate the production of hemp in Minnesota and to submit a State Hemp Plan to the United States Department of Agricultural for approval, which allows the Minnesota Department of Agriculture licensing and regulatory authority for hemp in the state.

[Minnesota Administrative Rules for Hemp Production and Processing](#) Page 8

[Minnesota Administrative Rules Chapter 1565](#) form much of the legal basis at the State level for regulation of hemp production and processing by the MDA.

[Appendix 1. Hemp Inspection, Sampling, and Testing Protocol](#) Page 23

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](#) Page 30

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

[Appendix 3. Enforcement Authority](#) Page 32

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](#) Page 38

Data summary of all the THC Test results from all hemp samples collected in Minnesota under the pilot program, years 2016 through 2020.



November 06, 2023

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 (MDA) is committed to the regulation of Minnesota’s hemp industry in partnership with the USDA. The 2014 Farm Bill contained a provision to allow state departments of agriculture to administer pilot programs to study the growth, cultivation, and marketing of hemp. In 2015, the Minnesota Industrial Hemp Development Act (IHDA) (MINN. STAT. § 18K) became law. This allowed the MDA to create a hemp pilot program in accordance with the Farm Bill. The Minnesota Hemp Pilot Program operated from 2016 through 2020.

The Minnesota State Hemp Plan was approved in July 2020 and became effective January 1, 2021. The *revised* Minnesota State Hemp Plan, updated to incorporate the federal Final Rule for commercial hemp regulation, was approved by the USDA and went into effect on May 6, 2021. Upon approval of the State Hemp Plan following the codification of the federal Final Rule for hemp, the MDA published rules for Chapter 18K (Minnesota Rule § 1565) in the fall of 2021. These rules mirror the regulatory requirements outlined in the State Hemp Plan and give the MDA full enforcement authority under state law for hemp production and raw hemp processing in Minnesota.

Since the *revised* State Plan was submitted, Minnesota has experienced a decrease in the number of applicants and number of hemp acres grown. This mirrors much of the nation. Despite the decrease, Minnesota was still one of the top five states that had the largest number of registered producers in 2022. Continued interest in hemp cultivation remains in Minnesota.

There were changes made to our state statutes and rules during the 2023 legislative session. To incorporate those changes, we have updated our State Plan. We are committed to working with the USDA to continue to operate 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 Peterson' in a cursive, flowing script.

Thom Peterson, Commissioner

HEMP STATUTES AND RULES

MINNESOTA STATUTES CHAPTER 18K - INDUSTRIAL HEMP DEVELOPMENT

18K.01 SHORT TITLE.

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

18K.02 DEFINITIONS.

Subdivision 1. Scope. The definitions in this section apply to this chapter.

Subd. 1a. Applicant. "Applicant" means an individual who submits an application for a license as required under this chapter. If the applicant is an entity, applicant means the owner or most responsible individual in charge of the entity.

Subd. 1b. Authorized representative. "Authorized representative" means any individual authorized by the licensee to make changes to the license and share data on behalf of the licensee.

Subd. 2. Commissioner. "Commissioner" means the commissioner of agriculture.

Subd. 2a. Entity. "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 hemp production as a partner in a general partnership, a participant in a joint venture, or a participant in a similar organization.

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.

Subd. 5. Processing. "Processing" means rendering by refinement hemp plants or hemp plant parts from their natural or original state after harvest. Processing includes but is not limited to decortication, devitalization, chopping, crushing, extraction, and packaging. Processing does not include typical farm operations such as sorting, grading, baling, and harvesting. Processing does not include the production of artificially derived cannabinoids as defined in section 342.01, subdivision 6.

Subd. 6. Processing location. "Processing location" means any area, building, plant, or facility registered with and approved by the commissioner in which a licensee converts raw hemp into a marketable product.

Subd. 7. Processor. "Processor" means a person or business that converts raw hemp into a product.

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.

18K.04 LICENSING.

Subdivision 1. Requirement; issuance; presumption.

(a) A person must obtain a license from the commissioner before (1) growing industrial hemp (2) processing industrial hemp, or (3) researching industrial hemp.

(b) To obtain a license under paragraph (a), 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.

(c) For a license to grow industrial hemp, 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 and any other information required under Code of Federal Regulations, title 7, part 990.

(d) For a license to process industrial hemp, the license application must include the name and address of the applicant, the legal description of the processing location, and any other information required by the commissioner.

(e) A licensee is responsible for compliance with the license requirements irrespective of the acts or omissions of an authorized representative acting on behalf of the licensee.

(f) 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.

(g) A person licensed under paragraph (a) to grow industrial hemp is presumed to be growing industrial hemp for commercial or research 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. Any first-time authorized representatives designated by the applicant must also submit to a background investigation. 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 processing, production, distribution, and sale of industrial hemp.

Subd. 4. Industrial hemp licensing data classification. (a) In addition to data classified pursuant to section 13.41, the following data collected, created, or maintained by the commissioner under this chapter is classified as private data, as defined in section 13.02, subdivision 12, or nonpublic data, as defined in section 13.02, subdivision 9:

(1) nondesignated addresses provided by licensees and applicants; and

(2) data that identify the specific locations where licensees and applicants grow or process, or will grow or process, industrial hemp, including but not limited to legal descriptions, street addresses, geospatial locations, maps, and property boundaries and dimensions.

(b) The commissioner may disclose data classified as private data or nonpublic data under this subdivision if the commissioner determines that there is a substantive threat to human health or safety or to the environment, or to aid in the law enforcement process.

Subd. 5. Industrial hemp licensing data security and auditing.

(a) The commissioner must establish written procedures to ensure that only individuals authorized by law may access the private data and nonpublic data identified in subdivision 4. An authorized individual's ability to enter, update, or access data must correspond to the official duties or training level of the individual and to the statutory authorization granting access for that purpose. All queries and responses, including the specific purpose for which data is requested and, if applicable, disclosed, and all actions in which data are entered, updated, accessed, shared, or disseminated, must be recorded in the data audit trail. Data contained in the audit trail are public to the extent the data are not otherwise classified by law.

(b) The commissioner must immediately and permanently revoke the authorization of any individual who willfully entered, updated, accessed, shared, or disseminated data in violation of state or federal law. If an individual willfully gained access to data without authorization by law, the commissioner must forward the matter to the appropriate prosecuting authority for prosecution.

(c) By January 15 of each odd-numbered year, the commissioner must provide a copy of the data audit trail required under paragraph (a) to the commissioner of administration; the chairs and ranking members of the legislative committees and divisions with jurisdiction over agriculture policy and finance, public safety, and data practices; and the Legislative Commission on Data Practices and Personal Data Privacy or its successor commission.

18K.05 – REPEALED 2023.

18K.06 RULEMAKING.

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

industrial hemp. Notwithstanding the two-year limitation for exempt rules under section 14.388, subdivision 1, Minnesota Rules, chapter 1565, published in the State Register on August 16, 2021, is effective until August 16, 2025, or until permanent rules implementing chapter 18K are adopted, whichever occurs first.

(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.

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.

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.

18K.09 – REPEALED 2023.

MINNESOTA ADMINISTRATIVE RULES CHAPTER 1565 - HEMP

1565.0100 PURPOSE.

The purpose of this chapter is to establish the requirements for a person to commercially produce and process hemp as provided under Minnesota Statutes, chapter 18K. A license issued under this chapter is required for a person to grow or process hemp in Minnesota.

1565.0200 DEFINITIONS.

Subpart 1. **Scope.** The definitions in this part apply to this chapter.

Subp. 2. **Acceptable hemp THC level.** "Acceptable hemp THC level" means when the measurement of uncertainty is applied to total THC resulting in a distribution or range that includes 0.3 percent or less of delta-9 tetrahydrocannabinol as defined in Code of Federal Regulations, title 7, part 990.1.

Subp. 3. **Applicant.** "Applicant" means a person who submits an application for a license as required under this chapter. If the applicant is an entity, applicant means the owner or most responsible individual in charge of the entity.

Subp. 4. **Authorized representative.** "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.

Subp. 5. **Cannabis.** "Cannabis" means a genus of flowering plants in the family Cannabaceae of which *Cannabis sativa* is a species, and of which *Cannabis ruderalis* and *Cannabis indica* are subspecies. 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.

Subp. 6. **Certified seed.** "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 commissioner.

Subp. 7. **Certificate of analysis.** "Certificate of analysis" means a document issued by an ISO 17025 accredited laboratory that documents the total THC concentration of a lot that it accompanies.

Subp. 8. **Commissioner.** "Commissioner" means the commissioner of agriculture.

Subp. 9. **Controlled Substances Act.** "Controlled Substances Act" is the law codified in United States Code, title 21, sections 801-971.

Subp. 10. **Conviction.** "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 chapter.

Subp. 11. **Corrective action plan.** "Corrective action plan" means a plan proposed by a licensed hemp producer and approved by the commissioner to correct a negligent violation of or noncompliance with a United States Department of Agriculture approved state hemp production plan, Minnesota statute, or any other provision under this chapter.

Subp. 12. **Criminal history report.** "Criminal history report" means a Federal Bureau of Investigation Identity History Summary that includes both federal and state criminal histories of an applicant obtained from the Bureau of Criminal Apprehension.

Subp. 13. **Culpable mental state greater than negligence.** "Culpable mental state greater than negligence" means to act intentionally, knowingly, willfully, recklessly, or with criminal negligence.

Subp. 14. **Decarboxylation.** "Decarboxylation" means the completion of the chemical reaction that converts THC acid (THCA) into delta-9 THC, the intoxicating component of cannabis. The decarboxylation value is also calculated using a conversion formula that sums delta-9 THC and 87.7 percent of THC acid.

Subp. 15. **Delta-9 tetrahydrocannabinol or THC.** "Delta-9 tetrahydrocannabinol" or "THC" mean the primary psychoactive component of cannabis. For the purposes of this chapter, delta-9 tetrahydrocannabinol and THC are interchangeable.

Subp. 16. **Department.** "Department" means the Department of Agriculture.

Subp. 17. **Destruction.** "Destruction" has the same meaning as disposal.

Subp. 18. **Disposal or dispose.** "Disposal" or "dispose" means an activity that transitions the noncompliant product into a nonretrievable or noningestible form. Disposal 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; and burying plant material into the earth and covering it with soil.

Subp. 19. **Dry weight basis.** "Dry weight basis" means 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 substance including the plant, extract, or other derivative, after excluding moisture from the item.

Subp. 20. **Dwelling.** "Dwelling" means any residential building or portion of the building intended or built for occupancy by one or more persons with facilities for living, sleeping, cooking, and eating, including apartments, townhomes, and any other multi-family structures.

Subp. 21. **Entity.** "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 hemp production as a partner in a general partnership, a participant in a joint venture, or a participant in a similar organization.

Subp. 22. **Farm Service Agency or FSA.** "Farm Service Agency" or "FSA" means the agency formed with the United States Department of Agriculture.

Subp. 23. **Fit for Commerce certificate.** "Fit for Commerce certificate" means a document issued by the commissioner attesting that raw hemp plant material has been tested for total THC concentration and is in compliance with this chapter.

Subp. 24. **Geospatial location.** "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.

Subp. 25. **Grow location.** "Grow location" means a contiguous land area, or greenhouses, hoop houses, or buildings for indoor cultivation, registered with the commissioner, on which a licensee or applicant conducts or will conduct licensed hemp cultivation activities. Each noncontiguous grow location must be registered separately.

Subp. 26. **Grower.** "Grower" means a person who grows hemp in order to harvest plants, plant parts, grain, or seed.

Subp. 27. **Genuine grower's declaration.** "Genuine grower's declaration" means a statement signed by a grower for a lot of hemp propagules that provides the lot number, kind, variety, origin, quantity, year of production, date of shipment, and name of the person to whom the lot was sold, shipped, or delivered.

Subp. 28. **Harvest report.** "Harvest report" means a form required to be submitted to the commissioner of agriculture by a licensed hemp grower on which the grower indicates the date the grower intends to harvest each hemp lot the grower reported on the planting report.

Subp. 29. **Immature plant.** "Immature plant" means a cannabis plant that is not flowering.

Subp. 30. **Key participant.**

A. "Key participant" means a sole proprietor, a partner in a partnership, a person with executive managerial control in a corporation, or a person who has a direct or indirect financial interest in an entity producing hemp.

B. A person with executive managerial control includes persons such as a chief executive officer, chief operating officer, and chief financial officer.

C. Key participant does not include farm, field, and shift managers.

D. Key participant does not include a member of the leadership of a Tribal government who is acting in the member's capacity as a Tribal leader, except when that member exercises executive managerial control over hemp production.

Subp. 31. **Licensee.** "Licensee" means any person who holds a license from the commissioner to grow, produce, or process hemp.

Subp. 32. **Lot.** "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. Lot also has the meaning given to "farm," "tract," "field," and "subfield" as these terms are defined in Code of Federal Regulations, title 7, section 718.2.

Subp. 33. **Marketable hemp product.** "Marketable hemp product" means a hemp product that does not contain any living hemp plant parts or viable seeds, and does not contain THC above the acceptable hemp THC level.

Subp. 34. **Measurement of uncertainty.** "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 of uncertainty includes uncertainty due to sampling.

Subp. 35. **Negligence.** "Negligence" means failure to exercise the level of care that a reasonably prudent person would exercise in complying with this chapter.

Subp. 36. **Person.** "Person" includes individuals, firms, associations, joint ventures, partnerships, estates, trusts, business trusts, corporations, or businesses.

Subp. 37. **Planting report.** "Planting report" means a form required to be submitted to the commissioner of agriculture by a licensed hemp grower on which the grower indicates the date the grower planted each hemp lot, the variety name or names, and the FSA lot number or numbers.

Subp. 38. **Postdecarboxylation value.** "Postdecarboxylation value" means the THC value calculated with a chromatograph technique using heat, such as gas chromatography, through which THCA is converted from its acid form to its neutral form, THC. This test calculates the total potential THC in a given sample.

Subp. 39. **Processing.** "Processing" means rendering hemp plants or plant parts from their natural or original state after harvest by refinement, decorticating, devitalizing, chopping, crushing, extracting, or packaging. Typical farm operations, including sorting, grading, baling, and harvesting, are not considered processing for purposes of this definition.

Subp. 40. **Processing location.** "Processing location" means any area, building, plant, or facility registered with and approved by the commissioner in which a licensee converts raw hemp into a marketable product.

Subp. 41. **Processor.** "Processor" means a person or business that converts raw hemp into a product.

Subp. 42. **Propagule.** "Propagule" means seeds, clones, transplants, and any other propagative hemp material.

Subp. 43. **Raw hemp.** "Raw hemp" means whole hemp plants, whether growing or not, or the stalks, viable seeds, unaltered flowers or leaves, or any unprocessed plant pieces or parts of hemp.

Subp. 44. **Remediation or remediating.** "Remediation" or "remediating" means the process of rendering noncompliant cannabis compliant by removing and destroying flower material while retaining stalk, stems, leaf material, and seeds, or shredding an entire plant into a biomass-like material, then retesting the shredded biomass material for compliance.

Subp. 45. **Sampling agent.** "Sampling agent" means a person trained on applicable United States Department of Agriculture, state, or Tribal procedures to collect hemp samples and who has approval and certification from the commissioner in order to collect regulatory samples for the department.

Subp. 46. **Sell or sale.** "Sell" or "sale" means:

- A. keeping, offering, or exposing for sale, use, transporting, transferring, negotiating, soliciting, or exchanging hemp;
- B. having in possession with intent to sell, use, transport, negotiate, solicit, or exchange hemp;
- C. storing, manufacturing, producing, processing, packing, and holding of hemp for sale;
- D. dispensing or giving hemp; or
- E. 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.

Subp. 47. **Territory of an Indian Tribe.** "Territory of an Indian Tribe" means: all land within the limits of an Indian reservation under the jurisdiction of the United States government, notwithstanding the issuance of any patent, including rights-of-way running through the reservation;

- A. all dependent Indian communities within the borders of the United States, whether within the original or subsequently acquired territory thereof, and whether within or outside of the limits of a state;
- B. all Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same; and
- C. any land title that is either held in trust by the United States for the benefit of an Indian Tribe or individual or held by an Indian Tribe or individual subject to restriction by the United States against alienation and over which an Indian Tribe exercises jurisdiction.

Subp. 48. **Total THC.** "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. The total THC also means the value determined by using a liquid chromatograph technique, which keeps the THCA intact. The chromatograph technique means Total THC = $(0.877 \times \text{THCA}) + \text{THC}$, which calculates the potential total THC in a given sample.

Subp. 49. **Volunteer hemp plant.** "Volunteer hemp plant" means a hemp plant that results from a previous crop.

Subp. 50. **Variety.** "Variety" means:

- A. a subdivision of a kind that is distinct, uniform, and stable;
- B. 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;

C. uniform in the sense that variations in essential and distinctive characteristics are describable; and;

D. 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.

1565.0300 APPLICATION PROCESS.

Subpart 1. Application.

A. An applicant for a hemp grower or processor license must pay a nonrefundable registration and inspection fee and submit an application to the commissioner containing the following information:

(1) the applicant's full name, business address, telephone number, and e-mail address if available. For an entity, the full business name, the principal business location address, telephone number, and the full name, title, and e-mail address, if available, of each key participant of the entity;

(2) a list of authorized representatives to be registered under the license;

(3) the proposed acreage and indoor square footage to be planted, if applicable;

(4) the legal description and geospatial location of any proposed registered grow or processing area;

(5) a map of the grow location, showing the boundaries and dimensions of the grow location in acres or square feet, if applicable; and

(6) the landowner's name, telephone number, and e-mail address, if different than the grower, if applicable.

B. As part of a complete application under this part, a first-time applicant must provide to the Bureau of Criminal Apprehension an official fingerprint card of the applicant, a nonrefundable background check fee, and a completed informed consent form authorizing the commissioner to obtain a criminal history report on the applicant. The criminal history report must be dated within 60 days of application.

C. As part of an annual renewal, a licensee must pay a nonrefundable license renewal fee to the commissioner.

Subp. 2. **License issuance prohibited in certain circumstances.** The commissioner must not issue a license:

A. 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 Code of Federal Regulations, title 7, part 990.20(b), applies;

B. if the applicant has not submitted all reports required under this chapter or owes past inspection fees or a penalty to the commissioner for violating a provision of this chapter; or

C. if the commissioner 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.

Subp. 3. **Ineligibility due to certain convictions.** An applicant is required during the course of the applicant's license period to ensure 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 as described in subpart 2, the individual is ineligible, during the ten-year period following the date of the conviction, to grow hemp or participate in the hemp program under this chapter.

1565.0400 GROWER LICENSE.

Subpart 1. **License required.** A person must possess a hemp grower license before planting or growing raw hemp in Minnesota.

Subp. 2. **FSA reporting.** A licensee must report all plantings by variety to their local FSA office as required under Code of Federal Regulations, title 7, section 990.7. A grower must consult with the grower's local FSA county office for acreage reporting requirements.

Subp. 3. **Forms; planting/harvesting report.**

A. A licensee must submit an FSA 578 form to the Farm Service Agency no more than ten days after planting a hemp lot.

B. A licensee must submit a planting report to the commissioner no more than ten days after submitting an FSA 578 form.

C. A licensee must submit a harvest report to the commissioner no more than 30 days and no less than five days before harvest. The licensee must include in the harvest report a certificate of analysis for any hemp lot that has not been selected by the commissioner demonstrating the THC levels of a representative sample of the hemp lot, collected within 30 days before the harvest date.

Subp. 4. **License period.** A license issued under this chapter is valid until the last day of the calendar year in which the license was issued and may be renewed in successive years.

Subp. 5. **Harvesting during license period required.** A person growing hemp must destroy any growing plant that is not harvested during the license period in which it was planted unless the license has been renewed.

Subp. 6. **Change in grow location.** A licensee must not change the location of a registered grow location without first notifying the commissioner and the licensee's local Farm Service Agency. A licensee must submit the proposed change to the commissioner along with an updated legal description, geospatial location, and map specifying the proposed changes to the registered grow location or grow locations and pay any applicant fees before planting.

Subp. 7. **Hemp seed certification.** A licensee growing hemp to produce certified seed must register with

and follow the requirements for seed certification by the Minnesota Crop Improvement Association.

1565.0500 PROCESSOR LICENSE.

Subpart 1. **License required.** A person must possess a hemp processor license before obtaining raw hemp materials for commercial processing purposes. Hemp may only be processed in this state by a person with a processor license. If hemp is processed in this state by a person without a processor license, the processed hemp is prohibited from entering the stream of commerce.

Subp. 2. **Source material documentation.** A licensee must provide upon request to the commissioner or to law enforcement information documenting the source material for any hemp plants, plant parts, grain, seeds, and products that the licensee is in possession of or had processed. Documentation must include any test results from an accredited laboratory validating that plant materials and products do not exceed the acceptable hemp THC level.

Subp. 3. **Change in processing location.** A licensee must not change the location of a registered processing location without first notifying the commissioner. A licensee must submit the proposed change to the commissioner along with an updated legal description, geospatial location or map specifying the proposed changes to the registered processing location, and if applicable, pay additional fees, before commencing processing at the new location.

Subp. 4. **Hemp sourcing requirements.** A processor must obtain hemp from a licensed Minnesota grower or from sources approved through another state or federally approved plan. A processor must obtain a copy of the Fit for Commerce certificate or certificate of analysis demonstrating the hemp material is within the acceptable hemp THC level from the grower, specific to the lot being purchased, before processing the hemp.

1565.0600 SUPERVISION, SAMPLING, AND INSPECTION.

Subpart 1. **Licensee requirements.** A licensee must:

- A. maintain on record any additional testing results of final harvested materials and any processed materials, to ensure compliance with the 0.3 percent total THC requirement;
- B. not knowingly make any materially false statement or misrepresentations regarding the licensee's cultivation or processing of cannabis plants;
- C. not cultivate, process, move, or distribute cannabis plants other than hemp unless licensed to do so;
- D. not cultivate or process hemp in an area not licensed by the commissioner;
- E. pay any fees applicable to the licensed activities; and
- F. have the legal right to the registered grow location, including the legal authority to grant the commissioner access to the grow location for inspection and sampling.

Subp. 2. **Sampling, testing, and destruction.**

A. A licensee is responsible to ensure the licensee's hemp plants are within acceptable hemp THC levels.

B. As a condition of obtaining and maintaining a license under this chapter, a licensee must allow a sampling agent, the commissioner, or the commissioner's designee to conduct field surveillance and crop sampling of the licensee's grow location or locations as requested by the commissioner. A regulatory sample must be collected by a sampling agent, the commissioner, or the commissioner's designee. A licensee is prohibited from collecting regulatory samples from the licensee's own growing locations.

C. A license holder or an authorized representative shall be present at the grow location during inspection and be available by telephone before or during the inspection, if possible. The landowner on record may be an authorized representative if authorized by the license holder. Authorization for entrance to and inspection of property and collection of hemp samples for testing must be granted by signature of the licensee as a part of the licensing process. If neither the license holder nor an authorized agent is planning to be present during the inspection and sampling event, communications with the license holder occurring before the inspection and sampling event must make the licensee and the sampling agent aware of the lots to be sampled, the location of the lots, and any other information pertinent to the inspection process.

D. The licensee must provide the sampling agent, the commissioner, or any law enforcement agency with complete and unrestricted access during business hours to:

(1) all areas where growing or harvested hemp and other cannabis plants are stored;

(2) all land, buildings, and other structures used for the cultivation, handling, producing, and storage of all hemp and other cannabis plants; and

(3) all locations listed in the producer's application and license.

E. A producer must not harvest a hemp lot unless a sample has been collected by the sampling agent no more than 30 days before the harvest. A sample must be collected by a sampling agent. A producer is prohibited from collecting a sample from the producer's own growing facility.

F. A sample collected according to established protocols approved by the commissioner are deemed representative of the location or lot from which the sample is obtained.

G. Lot compliance is based on whether the hemp THC level result determined on a dry weight basis includes a value of 0.3 percent within a range of values specified by plus or minus the measurement of uncertainty.

H. Any sample test result exceeding the acceptable hemp THC level is conclusive evidence that the lot represented by the sample is not in compliance with this chapter and must be disposed of or remediated in accordance with Code of Federal Regulations, title 7, section 990.27.

I. Any test result from a sample collected by the sampling agent is considered the official test result representing the lot.

J. A licensee must not commingle harvested lots of hemp plants with other harvested lots or other material without a proper Fit for Commerce certificate.

K. If a licensee is notified by the commissioner that the licensee's location will not be inspected by the commissioner within 30 days before harvest, the licensee is required to submit a certificate of analysis from an approved testing lab to demonstrate that the licensee's lots are within acceptable hemp THC levels.

Subp. 3. Research and breeding.

A. In addition to the requirements of part 1565.0400, an individual applying for a license to conduct hemp research and hemp breeding must submit to the commissioner a summary outlining the individual's objectives for performing hemp research or breeding, a timeline of activities, and a sampling plan that demonstrates a confidence level of 95 percent that no more than one percent of the plants in each lot would exceed the acceptable hemp THC level. The sampling plan 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. A research and breeding licensee must provide testing data to the commissioner when requested and may be subject to inspection, sampling, and testing by the commissioner.

C. Hemp that is grown for research purposes may not be offered for sale or otherwise enter the stream of commerce.

D. A hemp breeder must report all new varieties to the commissioner before release for commercial sale. A hemp breeder 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 percent THC.

1565.0700 CANNABIS PLANT; THC LEVEL OVER 0.3 PERCENT.

Subpart 1. **Disposal of certain plants.** A cannabis plant with a THC level exceeding the acceptable hemp THC level constitutes marijuana, a Schedule I Controlled Substances Act drug, and the producer must dispose of the noncompliant plants.

Subp. 2. **Disposal requirements.** The producer must dispose of noncompliant plants by using a Drug Enforcement Agency-registered reverse distributor or law enforcement agency, or the producer must dispose of the noncompliant plants on site at the farm or the hemp production facility.

Subp. 3. **Remediation.** A producer may bring noncompliant plants through the remediation process. Noncompliant plants that have gone through the remediation process may be resampled and retested to ensure the plant material is within the acceptable hemp THC level before it may enter the stream of commerce. If the plant material tests above the acceptable hemp THC level, the plant material is noncompliant hemp and must be disposed.

Subp. 4. **Documentation.** A licensee must provide documentation to the commissioner in the form of in-person meetings, pictures, videos, or other proof to verify that proper disposal or remediation of noncompliant plants occurred successfully.

1565.0800 FIT FOR COMMERCE CERTIFICATION.

Subpart 1. **Transferring hemp ownership.** A person must not transfer ownership of raw hemp to a processor or to the public without a Fit for Commerce certificate.

Subp. 2. **Acquiring raw hemp.** A processor must not acquire or process raw hemp grown within Minnesota without acquiring a copy of a Fit for Commerce certificate issued by the commissioner to the grower specific to the lot being purchased.

Subp. 3. **Drying or field-cleaning hemp.** For purposes of this part, "processing" does not include drying or

field-cleaning of hemp. The licensee must notify the commissioner if the licensee is drying or field-cleaning hemp from the lot in a location other than what is listed on the licensee's application or license.

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

1565.0900 TRANSPORTING HEMP.

During transport of any raw hemp, the transporter must have in the transporter's 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. if the hemp is from another state, 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.

1565.1000 HEMP PROPAGULES.

Subpart 1. **Record keeping.** To sell or purchase hemp propagules, a licensee must maintain the following documents on record for three years:

- A. the lot number or other lot identification of the hemp propagule lot;
- 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 the total THC concentration; and
- G. a copy of required United States Department of Agriculture documents if importing the propagules from another country.

Subp. 2. **Hemp destruction required.** Upon suspension, revocation, expiration, or nonrenewal of a licensee's license under this chapter, the licensee must destroy any live cannabis plants without reimbursement.

Subp. 3. **Volunteer hemp plants.** When volunteer hemp plants are present, a licensee must either (1) destroy the volunteer hemp plants, or (2) register the location where the plants are present as a new grow location and pay any fees required by this chapter. The licensee must also update the location information

with the Farm Service Agency.

Subp. 4. **Hemp seed labeler.** A hemp seed labeler selling seed in Minnesota must possess a current Minnesota seed permit and comply with Minnesota Statutes, sections 21.80 to 21.92, Minnesota Rules, parts 1510.0011 to 1510.0360, the Federal Seed Act under United States Code, title 7, sections 1551 to 1611, and Federal Seed Act Regulations under Code of Federal Regulations, title 7, part 201.

Subp. 5. **Prohibited sales.** A person must not sell hemp propagules for commercial purposes to any person in the state that is not licensed by the commissioner under this chapter. Upon request from the commissioner, a person selling hemp propagules for commercial purposes must provide records showing to whom hemp propagules were distributed.

Subp. 6. **Wild hemp.** A licensee must not acquire or grow hemp propagules of wild, landrace, or unknown origin without first obtaining written approval from the commissioner. Hemp clone lots must have the total THC concentration tested for each generation before sale of any plants from that lot.

1565.1100 HEMP PRODUCTION.

Subpart 1. **Grow location.** Unless restricted by local ordinance or other state law, a person licensed under this chapter may grow hemp in any area zoned for agriculture.

Subp. 2. **Residential prohibition.** A person must not grow, dry, process, or store hemp plants in residential dwellings.

Subp. 3. **Compliance.** A person producing or processing hemp must comply with all federal and state pesticide, food, and feed laws.

1565.1200 HEMP DATA AND REPORTING REQUIREMENTS.

Subpart 1. **Record keeping.** A licensee must maintain records regarding the acquisition, production, handling, selling, remediation, and disposal of all plants subject to this chapter. All records must be maintained for at least three years. A licensee's records and data maintained at a grow location or processing area are subject to an audit by the commissioner. A licensee must make available for inspection by the commissioner or the commissioner's designee during reasonable business hours or upon request by the commissioner all records required to be kept under this subpart.

Subp. 2. **Required notification.** A licensee must notify the commissioner and local law enforcement within 24 hours of discovery that any of the licensee's hemp is missing, has been stolen, or is suspected to have been modified or tampered with without the licensee's approval.

Subp. 3. **Copy of license.** A licensee must provide a copy of the licensee's license upon request by the commissioner or law enforcement at any time. A copy must be given to the landowner or facility owner where hemp is grown or processed if the landowner or facility owner is not the licensee.

Subp. 4. **Data transferring.** Any information obtained by the commissioner regarding a licensee's growing or production of hemp may be provided to federal, state, or local law enforcement agencies by the commissioner without further notice to the licensee.

Subp. 5. **Required report.** A producer must report the producer's hemp crop acreage to the Farm Service Agency as required by Code of Federal Regulations, title 7, part 990.7.

Subp. 6. **Required lab reports.** A laboratory approved by the commissioner to conduct regulatory samples of hemp for licensees under this chapter must report its results for all samples tested to the United States Department of Agriculture as required by Code of Federal Regulations, title 7, part 990.7. A laboratory must only submit test results used to determine compliance with this part. Test results from informal testing conducted throughout the growing season are not required to be reported to the United States Department of Agriculture.

Subp. 7. **Sampling agents information.** The commissioner must maintain information on sampling agents as required by federal law.

1565.1300 DENIALS AND VIOLATIONS.

Subpart 1. Disqualifying convictions.

A. The commissioner must deny an application for a license if the applicant or a 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.

B. If an individual, as described in part 1565.0300, subpart 3, has any felony related to the possession, production, sale, or distribution of a controlled substance on the individual's criminal history report, the individual is ineligible to produce hemp or participate in the hemp program under this chapter for ten years following the date of the conviction.

Subp. 2. **Seizure and destruction of hemp.** When the commissioner revokes a license or registration, any hemp in possession of the revoked party must be destroyed by the revoked party. If the hemp is not destroyed, it is subject to seizure and destruction by the commissioner or law enforcement. The revoked party is responsible for the cost of the seizure and destruction of the hemp.

Subp. 3. Negligent violations.

A. A producer is subject to corrective action under subpart 4 for negligently:

- (1) failing to provide an accurate legal description of land where hemp is produced;
- (2) producing hemp without a license; or
- (3) producing cannabis (marijuana) exceeding the acceptable hemp THC level.

B. A hemp producer is not negligent under this subpart if the producer makes reasonable efforts to grow hemp and the cannabis does not have a delta-9 tetrahydrocannabinol concentration exceeding the level defined in Code of Federal Regulations, title 7, part 990.6(b)(3).

Subp. 4. Corrective actions for negligent violations.

A. For each negligent violation, the commissioner must issue a Notice of Violation and require a corrective action plan for the producer. The producer must comply with the corrective action plan to cure the negligent violation. Corrective action plans must be in place for a minimum of two years from the date of the corrective plan's approval. The producer is subject to and must cooperate with additional inspections to ensure compliance with the corrective action plan.

B. Corrective action plans must, at a minimum, include:

- (1) the date by which the producer is required to correct each negligent violation;
- (2) steps to correct each negligent violation; and
- (3) a description of the procedures to demonstrate compliance.

C. A producer that negligently violates this part must not, as a result of the violation, be subject to any criminal enforcement by any federal, state, or local government.

D. 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.

E. The commissioner must revoke the license of a producer that has three negligent violations in a five-year period. The negligent producer is also ineligible to produce hemp for a period of five years beginning on the date of the third violation. Producers shall not receive more than one negligent violation per growing season.

Subp. 5. Other violations.

A. If the commissioner determines that a licensee has violated the terms of the license or of this part with a culpable mental state greater than negligence, the commissioner must immediately report the violation to the United States Department of Agriculture, the United States Attorney General, and the chief law enforcement officer of the state.

B. When the terms of item A have been met, subparts 3 and 4 do not apply to the violation.

1565.1400 LICENSE REVOCATION.

Subpart 1. **Immediate license revocation.** The commissioner must immediately revoke a license if a licensee:

- A. pleads guilty to, or is convicted of, any felony related to a controlled substance;
- B. made any materially false statement regarding the requirements of this chapter to the commissioner with a culpable mental state greater than negligence;
- C. is found to be growing cannabis exceeding the acceptable hemp THC level with a culpable mental state greater than negligence; or
- D. has negligently violated this chapter three times in five years.

Subp. 2. **Inspection interference.** It is unlawful for any person to hinder or obstruct an inspector from inspecting, sampling, or carrying out the duties under this chapter or Minnesota Statutes, chapter 18K.

1565.1500 LABORATORY REQUIREMENTS.

After December 31, 2022, only laboratories registered with the Drug Enforcement Agency may conduct

testing under this part. At a minimum, a laboratory conducting analytical testing of samples for delta-9 tetrahydrocannabinol concentration levels for purposes of the testing required by this chapter must:

- A. use the post decarboxylation value method or other similarly reliable methods approved by the commissioner and the United States Department of Agriculture;
- B. determine and report the total delta-9 tetrahydrocannabinol concentration level on a dry weight basis;
- C. estimate and report the measurement of uncertainty with test results; and
- D. use appropriate, validated methods and procedures for all testing activities required under this chapter and evaluate the 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 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 $\text{delta-9 THC} + (\text{THCA} \times 0.877)$ 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.

APPENDIX 3. ENFORCEMENT AUTHORITY

MINNESOTA STATUTES CHAPTER 18J – INSPECTION AND ENFORCEMENT

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.

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.

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.

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.

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.

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.

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.

18J.08 APPEALS OF COMMISSIONER'S ORDERS.

Subdivision 1. Notice of appeal.

(a) After service of an order, a person has 20 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.

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.

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.

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. THC TEST RESULTS DATA BY VARIETY- ALL SAMPLES 2016-2020

The following 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 and consecutive years program testing data to select hemp Lots for sampling under a performance-based plan.

| | 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 |
|----|-------|--------------------------|---------------------------------------------|--------------------------------|-----------------------|------------------------------|--------------------------|--------------------|------------------------|------------------------|------------------------------|------------------------|---------------------------|
| 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 |
| 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 Little | 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 | Tatanka 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 |