MEDSAFE
New Zealand Medicines and Medical Devices Safety Authority

Guidelines for the Sampling of Industrial Hemp for Testing

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This document provides guidance to industrial hemp licence holders on the sampling of industrial hemp for testing.

Summary

- The Misuse of Drugs (Industrial Hemp) Regulations 2006 (the Regulations) came into force on 1 August 2006.
- The object of the Regulations is to enable the cultivation and distribution of industrial hemp under a licensing regime that ensures that other forms of cannabis are not cultivated and distributed under the guise of industrial hemp.
- The Regulations are administered by the Regulatory Practice and Analysis Branch of Medsafe, acting under delegation from the Director-General of Health.

Testing requirements

- Industrial hemp licence holders are required to undertake testing of their hemp crop pursuant to regulation 41 of the Regulations in response to written direction from Medsafe.
- The direction may be provided as an additional operating condition on the Licence for Industrial Hemp.
- Testing must be completed by an approved laboratory, and the licence holder must cover the costs of this testing.

Protocol for hemp sampling

- The following protocol has been developed by Medsafe for the provision of samples of hemp for testing.

Approved Laboratory

- An Approved Laboratory means the Institute of Environment Science and Research Limited or any other laboratory approved by the Director-General for the purpose of testing samples of hemp under the Regulations.
- A list of Approved Laboratories is published on the Manatū Hauora – Ministry of Health website (www.health.govt.nz).
- An Approved Laboratory will be able to advise you of their process and cost of testing.
- To aid in the timely reporting of results, you are encouraged to advise an Approved Laboratory by email at least one week prior to collecting your hemp samples, as to when you intend to send the samples for testing.

Number of samples

- A minimum of five samples should be taken from one plot. Sometimes more than 20 plant samples will be needed to adequately represent the plants growing in the plot. Growing conditions and seed stock may vary.

Selection of plants

- Select plants which have come from each of the seed stocks planted and which have been exposed to different environmental conditions, e.g. edges of plots and centre of plots.
- If the plot requires more than 20 plants to be representative, samples from several plants may be combined. It is preferable that the combined plant samples be taken from similar growing conditions and the same seed stock. A combined plant sample should contain samples from no more than 10 plants.
- If plants are being grown from different seed stock it will be important to get a representative sample of plants from all seed stock grown in different growing conditions.

Diagram showing positions of samples

- It is important to keep track of which plants were sampled and from where in the plot.
- To be able to determine from which plot and where in a plot a particular sample has come from, the position from which the plants are sampled within the plot should be shown and coded on a diagram. A simple diagram depicting the plot can be marked with the approximate areas that the plant samples are taken and what code the samples have been given. The same code should be marked on the bag in which the samples are collected and sent for testing.
- This diagram shall be provided to Medsafe if requested.

Material used for sampling

- The whole plant is not required for testing. The sample should be taken at the soft seed stage (when seeds are just visible, and no hard outside coat has developed). This is the part of the plant with the highest levels of THC.
- The sample should be pruned from the seed head or growing tip of the plant. The sample should include all the leaf, seed head and stalk obtained by cutting about 5 centimetres from the top of the plant (or growing tip). This will be sufficient for both dioecious and monoecious cultivars.

Timing of samples

- For applications for approvals of cultivars of industrial hemp, samples should be taken from the plant about two - three weeks before the plants are due to be harvested.
- When directed by Medsafe to take samples, the licence holder must comply. New licence holders will often have a condition requiring testing added to their Licence.

Collection of samples

- Growers of the crops may collect their own samples. If further tests are required to be done, Medsafe may take, or oversee the taking of, further samples.
- Collect samples into paper (not plastic) receptacles.

Preparation of samples

- Samples should be air dried for at least one day, preferably two. Each sample must be stored in a separate packet. Each packet should be clearly marked with the code which enables the grower to tell where the sample was taken from. Each packet should provide room for air movement (i.e. not packed too tightly in the paper bag).

Storage of samples

- Samples should be stored in paper (not plastic) bags.

Identification of samples

- The grower/licence holder must write on each sample packet the following information:
    (a) the name of the cultivar or variety
    (b) the date on which the sample was taken
    (c) the area of the location from which the sample was taken
    (d) the name of the licence holder and the number of the licence
    (e) any other particulars that Medsafe may require.

Delivery of samples

- How samples are delivered to the approved laboratory is up to the grower/licence holder, as long as it is secure and fast. This could be by personal delivery or overnight courier. Fast delivery is important as fresh plant will start to rot quickly in warm weather and when sealed.
- Please do not send samples for transit over the weekend, i.e. not on a Friday.

Other information

Requirement to provide additional samples

- If the approved laboratory considers any original samples inadequate for satisfactory testing, the laboratory may request the licence holder to provide additional samples within 10 working days.
- The licence holder must comply with the request (refer to regulation 42 of the Regulations).

Testing of samples

- At the approved laboratory, the plant samples will be dried thoroughly. Stalk and seed will be removed and the potency of remaining leaf and flowering parts will be analysed. Potency is determined as the percentage of THC relative to the dry weight of the plant material. The THC will be extracted from the plant material using a solvent and the amount of THC will be determined by comparison with a certified standard.
- The approved laboratory will provide a report giving the results of the potency analyses of each sample. For tests directed by Medsafe, the report will be provided to the licence holder as well as to the Medsafe.
- The report is usually provided before the harvest date, if applicable.

Reporting of test results

- The licence holder must report the test results to Medsafe as soon as practicable after the result is received (refer to regulation 43 of the Regulations).

- When the test result is adverse, the licence holder must notify Medsafe no later than 5 days after the result is received (refer to regulation 44 of the Regulations).
- Applications for approvals of cultivars of industrial hemp must include the test results in the application (refer to regulation 6(2) of the Regulations).

When test result is adverse

- When a test result is adverse (above 0.35%), Medsafe may require a licence holder to have further tests done, and/or harvesting of the affected plants. If the test result is above 0.5% Medsafe may require destruction of the crop (refer to regulation 44 of the Regulations).

Review of adverse test result

- A licence holder who has been required to destroy affected plants may apply to Medsafe for a review of the adverse test result (refer to regulation 46 of the Regulations).

Maintenance of records

- Every licence holder who is authorised to possess hemp seeds must keep a seed register. Every licence holder who is authorised to cultivate hemp must keep a cultivation register and a harvest register. A copy of the registers must be provided to Medsafe on request.
- When directed by Medsafe, a licence holder must provide a report on the authorised activities undertaken by the licence holder.
- The requirements for the maintenance of records and annual reporting are contained in regulations 49 – 54 of the Regulations.

Contact us

Regulatory Practice and Analysis Branch (email industrialhemp@health.govt.nz).