

Guidelines for the Sampling of Industrial Hemp for Testing

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.

These Regulations are administered by the Medicines Control Team within the Ministry of Health.

Every reference in the Regulations to the Director-General of Health has been officially delegated to the Licensing Authority (“the Authority”).

All correspondence with the Authority should be sent to:

**Licensing Authority
Medicines Control
Ministry of Health
No. 1 The Terrace
PO Box 5013
Wellington 6145**

The Authority may, by written direction, instruct a licence holder to have samples of the crop tested by an approved laboratory. The licence holder is required to meet the costs of this testing.

Testing of samples of hemp is required to ensure the hemp plants grown have a tetrahydrocannabinol (“THC”) content of less than 0.35%.

License holders are required to be familiar with the obligations under the Regulations. The Regulations can be viewed at www.legislation.govt.nz.

Protocol for Hemp Sampling

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

Approved laboratory

The approved laboratory for testing of samples of hemp under the Regulations is: Environmental Science and Research Ltd (ESR). Website: www.esr.cri.nz.

ESR is considered to have the experience necessary in measuring THC content.

Please address all enquiries or samples to either Jackie Bunyan or Vivienne Hassan at ESR in Auckland:

Mount Albert Science Centre
Hampstead Road
Private Bag 92-021
Mount Albert
Auckland

Ph: 09-8153670

Email: jackie.bunyan@esr.cri.nz

To aid in the timely reporting of results, please advise Jackie Bunyan by email at least one week prior to collecting samples, as to when you intend to send the samples to ESR for testing.

Cost of Analysis

As at January 2010, ESR advises that there is a \$150 handling fee and \$250 (excl GST) per hour for analysis of industrial hemp samples. A maximum of three hours work is required for up to 5 samples.

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 the Authority 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 the Authority 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, the Authority 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 (if applicable)
- (e) any other particulars that the Authority 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 the Authority, the report will be provided to the licence holder as well as to the Ministry of Health.

The report is usually provided before the harvest date, if applicable.

Reporting of test results

The licence holder must report the test results to the Authority 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 the Authority 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%), the Authority 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% the Authority 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 the Authority 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. Copy of registers must be provided to the Authority on request.

When directed by the Authority, 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.

Further questions about the sampling process

Contact: Medicines Control on (04) 496 2018.