DEPARTMENT OF AGRICULTURE

Pesticide & Fertilizer Management Division
Incident Response Unit

Collection and Analysis of Soil Samples for Arsenic
Recommended Procedures for Homeowners-Renters-Residents

This document provides guidance for individuals wanting to collect a soil sample(s) from their personal/private property, and submit the sample to a qualified laboratory, to be analyzed for arsenic. The contact information for Interpoll Laboratories, Inc. and Legend Technical Services Inc. is listed at the bottom of this document; both laboratories are located in Minnesota and are accredited for arsenic analysis by the Minnesota Department of Health. Other laboratories may be available to provide analysis for arsenic. The Minnesota Department of Agriculture (MDA) recommends that the person intending to collect the sample(s) contact the laboratory performing the analysis, prior to collection, to ensure the sample(s) is properly collected, transported and submitted to the laboratory. Some laboratories provide the collector with specific bags or jars to be used for submitting the sample(s) to ensure the proper amount of sample is collected and the sample is properly secured while in transit.

If selecting a laboratory other than Interpoll Laboratories, Inc. or Legend Technical Services Inc. please ensure the laboratory uses a reporting limit of 3 milligrams per kilogram (mg/kg) or parts per million (ppm) or less for arsenic samples. The recommended analytical method is SW-846 Method 6010D which utilizes Inductively Coupled Plasma. The cost for analysis of one soil sample for arsenic generally between $30 to $75.

Typically, when collecting a residential soil sample(s) for arsenic analysis, a composite sample is collected to ensure the sample is representative of the area being sampled; as compared to a discrete sample where only one sample is taken for analysis. To collect a composite sample, it is recommended that five subsamples be collected from a depth of 0-3 inches throughout the area of concern. The subsamples are then mixed together to create one composite sample. The trowel or collecting implement should be cleaned with soap and water prior to collecting each soil sample. Subsamples should be mixed together in a clean, disposable foil roasting dish or other clean, disposable container. Fill the appropriate sampling bag or jar and transport to the laboratory. Again, contact the laboratory performing the analysis, prior to sampling, to ensure the sample is properly collected, transported and submitted.

Do not include vegetation, wood chips, gravel, sand or compost in your samples. Avoid sampling near artificial sources of arsenic such as fences, picnic tables, decks or other structures made of wood treated with copper chromated arsenate (CCA) or green treated wood.

If you have any questions concerning interpretation of the analytical results, please contact Paul Haiker at 651-201-6199 or paul.haiker@state.mn.us; or Stuart Orlowski at 651-201-6148 or stuart.n.orlowski@state.mn.us.

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

Minnesota laboratories accredited by the Minnesota Department of Health for arsenic analyses:

Interpoll Laboratories, Inc.
http://www.interpoll-labs.com/
4500 Ball Road
Circle Pines, MN 55014
(763) 786-6020
Contact: Greg Holman or Jennifer Bojanowski

Legend Technical Services Inc
https://legend-group.com/
88 Empire Drive
St. Paul, MN 55103
651-221-4062
Contact: Bach Pham