

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

Minnesota Department of Agriculture, Incident Response Unit
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The Minnesota Department of Agriculture (MDA) recommends that you contact one of the laboratories listed at the end of this letter. The laboratories included in this list are local laboratories which are certified for arsenic analyses by the Minnesota Department of Health.

Please make sure that the laboratory uses a reporting limit of 3 milligrams per kilogram (mg/kg or parts per million) or less for arsenic for your sample(s). The recommended analytical method is SW-846 Method 6020 which utilizes Inductively Coupled Plasma and Mass Spectrometry. The cost for analysis of one soil sample for arsenic at this reporting limit is usually around \$30. The laboratory should provide sample bottles for the soil.

For the MDA soil sampling study that was completed in September 2003 the soil samples were collected from a depth of 0-3 inches below ground. One soil sample was made up of five subsamples collected from a depth of 0-3 inches within a 5-foot diameter area. The five subsamples were then mixed together to form one sample. We recommend that you follow this procedure as well. Please make sure that you do not include vegetation, wood chips, gravel, sand or compost in your samples. In grassy areas you should collect your soil sample below the turf. In addition, 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.

We recommend that you use a clean trowel for each sample and mix the subsamples in a clean, disposable foil roasting dish or some other clean, disposable container. The trowel should be cleaned with soap and water between each soil sample, in case you collect more than one sample.

The filled sample bottle(s) should be placed on ice in a cooler for transport to the laboratory.

We would be happy to help you interpret the analytical results once you receive them from the laboratory. If you have any questions please feel free to call Cathy Villas-Horns at (651) 297-5293 or Robert Anderson at (651) 297-5731.

Local laboratories certified by the Minnesota Department of Health for arsenic analyses:

Braun Intertec, Inc.
11001 Hampshire Avenue South
Minneapolis, MN 55438
(952) 993-2638

Legend Technical Services
775 Vandalia Street
St. Paul, MN 55114
(651) 642-1150

Interpoll Laboratories, Inc.
4500 Ball Road N.E.
Circle Pines, MN 55014
(763) 786-6020

Pace Analytical Services, Inc.
1700 Elm Street, Suite 200
Minneapolis, MN 55414
(612) 607-1700