

Lead-Free Gardening in the City

www.Openlands.org

Soil Testing

When testing your soil, start with a lead test. Lead is considered an indicator metal (meaning that if it is present at high amounts, you may have other types of contamination) and is a neurotoxin. Metals such as lead are absorbed into our vegetables and fruit, and then we eat them. Children are the most affected by these contaminants, which affect physical development and our brains. We usually think what we grow at home to eat is healthy, but it may not be. In order to know for sure, get your soil tested.

Taking a good soil sample:

- Timing is important.
- Use clean equipment & rinse after each sample.
- Sample each area separately.
- Dig to the bottom of the zone.
- Mix samples well.
- Mark container appropriately.

Tools you will need:

- shovel
- handtrowel
- bucket
- permanent marker
- plastic baggies
- way to ID your sample areas

What your lead test results mean (in parts per million or mg/kg):

0-35 ppm	the natural level of lead found in soil
75 ppm	the <u>Canadian</u> maximum level of lead in the soil that adults or children eat produce from
100 ppm	the EPA established maximum amount of lead in soil that <u>youth</u> should be eating produce from
400 ppm	the EPA established maximum amount of lead in soil that <u>adults</u> should be eating produce from
400 ppm+	do not garden in soil directly without making one of the modifications listed on page 2

Sources for more information:

- www.greennetchicago.org
- Illinois Department of Public Health
- Center for Disease Control

What you can do about contaminated soil...

- Install raised beds to grow vegetables, installing an impermeable landscape fabric in the bottom of the bed, stapled to the sides of the bed.
- Grow perennials only
- Add a protective layer of mulch, stone or grass that will limit dusting of soil (to prevent inhalation)
- Clean body, clothing and shoes to ensure that lead particles from the soil are not brought into the home or school
- Add compost or other organic material
- Test for lead every three years to make sure there hasn't been a movement of the contaminants into the planting medium.
- Radical and costly options include capping the soil or removing it with safe and appropriate disposal.

More about lead

If you are planting directly in the ground consider this:

- Roots (such as beets, carrots, garlic or potatoes) are most likely to absorb lead in the edible parts.
- Leafy vegetables and herbs (such as greens, lettuce, cilantro or basil) hold some lead in the part you eat, so be careful!
- Fruit is the safest part of a plant to eat – including tomatoes, peppers, and tomatillos.

Where to test your soil for lead:

STAT Analysis 312/733-0551, FAX: 312/733-2386

Chicago Technology Park, 2242 W. Harrison St., Chicago, IL 60612

STATinfo@STATAnalysis.com or www.STATAnalysis.com

This is a full service environmental and microbiology laboratory. Charges are lower for lead testing in this laboratory than in A&L, only \$18.00 per test for a turn-around of 5 business days, and since it is local, you can deliver it and save postage.

A&L Great lakes Laboratories, Inc.

3505 Conestoga Drive, Fort Wayne, IN 46808-4414,

www.algreatlakes.com

Testing fees:

\$29.00 for testing lead

14.00 for each additional test for any other single metal

8.60 for fertility testing

160.00 for a complete RCRA test that includes: arsenic, mercury, selenium, cadmium chromium, lead, silver and barium