

Vanderburgh County Health Dept.

Gardening in Leaded Soils

Why be concerned:

Exposure to lead and the absorption into the body via ingestion or inhalation may cause a host of physical ailments. We can be exposed to lead by many different means including contact with pre-1978 paint, imported items, and soil.

How does lead get into soil:

Leaded paint, air borne emissions from automobiles and industry as well as other sources can deposit lead in your soil. Since lead is an element once it is in the soil it will remain there. This means the soil could be contaminated long after the source of the contamination (e.g. a factory) has been removed.

How do I know if my soil has lead:

A laboratory test is the only way to determine if your soil has lead. Home test kits sold at gardening centers or home improvement stores are of limited value. Contact a local environmental lab or your health department for help.

Can I garden in lead soil:

Yes it is possible to garden in lead impacted soil depending on the amount of lead in the soil and if you use some simple precautions. As plants take up very little lead the danger lays with inhaling or ingesting lead soil or dust Simple physical contact with lead soil WILL NOT cause lead poisoning.

What precautions should I take:

Soils with 400 ppm or less of lead

- Locate gardens away from structures and roads.
- Add organic matter to your soil, such as peat moss, compost, and manure. Organic compounds bind lead and make it less available to the plants.
- Maintain the pH of your soil at 6.5 or higher, lead is also less available in alkaline soils.
- Add a layer of straw, shredded leaves or landscape fabric as mulch to control dust.
- Wear gloves when working in soil and wash your hands with soap and water.
- Don't let kids help. Their smaller bodies are poisoned more quickly than adults.
- Avoid working in dry, dusty soil. Dampen the area to prevent air borne dust.
- Wash your gardening clothes separately from other laundry.
- Wash all vegetables with a 1% vinegar solution (1oz. of vinegar per gallon of water) to remove dirt. Peel root crops, remove the outer leaves of leafy vegetables like lettuce.

Soils with 400 ppm to 1000 ppm - Follow the above practices and also:

- Avoid leafy crops such as lettuce, celery, spinach, and herbs. What lead the plant takes up is concentrated in the leaves of these crops.
- Grow vegetables that produce edible fruits such as tomatoes, peppers, cucumbers, beans, squash, etc. Lead does not concentrate in the fruits.
- Do not use plants grown in contaminated soils for compost

Soils with greater than 1000 ppm

- Do not garden in soils above 1000 ppm
- Raise vegetables in containers filled with lead free soil
- Construct raised beds lined with landscaping fabric and filled with lead free soil.

Contact the Vanderburgh County Health Department at 812-435-5695 for information on lead hazards.