REDUCE YOUR RISK

Land used for homes and for industry sometimes has chemicals left behind in the soil. It helps to know the previous uses of the property to make decisions about safer gardening and farming:

- Build raised beds with a barrier, such as landscape fabric or newspaper, on the bottom and fill with 12 inches of clean soil.
- Cover the soil in your garden and walking paths with a thick layer of mulch, clean compost, or straw.
- Test the pH level in your soil. Keep the pH level near neutral, 6.5 – 7, by following your soil test's recommendations.
- Add organic matter, such as grass clippings, to your soil. Some chemicals stick to organic matter, making them less likely to move into your plants.
- Brush any soil off your clothes and remove your shoes before going indoors.
- Wash your hands and clean under your fingernails after working in the soil if not wearing gloves.
- Wash fruits, vegetables, and flowers, especially anything that will be eaten.
- Remove the outer leaves of leafy vegetables like head lettuce or cabbage.
- Peel root vegetables such as carrots, potatoes, and beets and dispose of properly,
- Don't let pets in areas where the soil might be contaminated.

If you plan to offer produce for sale

Contact the ***Michigan Department of Agriculture and Rural Development*** for information on pesticide application and management; animal industry regulations, or food and dairy requirements: **1-800-292-3939**

Get a Soil Test Kit

The Greening of Detroit and *The Garden Resource Program* have programs to assist with soil testing at a low cost. For more information call **(313) 237-8733 or (313) 757-2635.**

Soil Contaminant Testing

Michigan State University Diagnostic Center for Population and Animal Health (DCPAH) will test for chemicals. The cost is $50. For more information call **(517) 353-1683.**

University Laboratories, Inc. provides food safety testing to detect chemicals, pesticides, and metals. Phone: **(248) 489-8000**

Michigan Department of Community Health MDCH

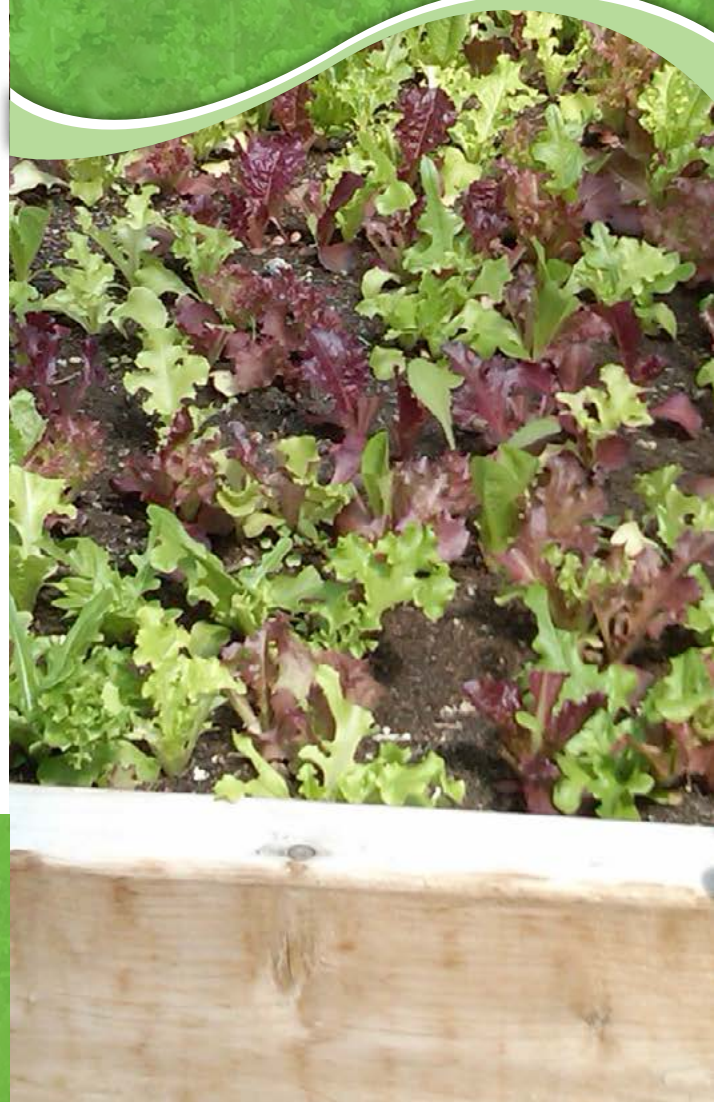
Michigan Department of Agriculture & Rural Development

STATE OF MICHIGAN DEQ DEPARTMENT OF ENVIRONMENTAL QUALITY

FOR MORE INFORMATION AND A DIGITAL COPY OF THIS BROCHURE, VISIT:
WWW.MICHIGAN.GOV/MDARDPUBLICATIONS

MARCH 2014

WORKING WITH SOIL IN URBAN AREAS



WHAT YOU NEED TO KNOW

Michigan's urban landscapes and green spaces offer tremendous opportunity for home and community gardens and urban farms. Plain soil can be turned into beautiful, healthy, and productive fields of fruits, vegetables, and flowers for all to enjoy.

Growing food for your family or the community can be a source of great pride. Although urban industrial areas may have more chemical contamination, or pollution, in the soil and air than rural areas, the benefits of growing fresh foods far outweigh the potential hazards.

There are ways to grow plants and prepare produce that help keep everyone safe.

Knowledge is Power

If you are farming on more than two acres in Detroit, you must have your soils tested for contaminants. Sometimes lead or other chemicals in soil can become airborne and create dust. Breathing and eating the dust can be harmful. If you eat the plants without washing them, you can swallow the chemicals.

Children are more likely to be harmed by lead and other chemicals in soil. Children are smaller and breathe in air that is close to the ground. They often put dirty hands or objects like toys in their mouths.

We offer some suggestions to keep you and your family healthy while farming and gardening in your area.

PREPARING A SOIL SAMPLE

The most challenging part of testing your soil may be getting a soil sample that is most like the entire area you will be using for gardening or farming. Preparing a good soil sample includes the following steps:

1. Order a soil test kit.
2. Gather a shovel or trowel and a clean plastic pail.
3. Plan on collecting 10-15 soil samples for each area of the property you want to test.
4. Remove dead plants, mulch, or turf thatch from the ground before putting your shovel or trowel into the ground.
5. Dig to the depth you expect the plant roots to be, about 6-8 inches deep for flowers and vegetables, and 8-12 inches deep for trees.
6. Remove the same amount of soil from each area of the property. (Dig a separate set of soil samples from the front and back yards if they have had different uses or have different types of soil. Sample light soil, dark soil, limed, and un-limed areas separately.)
7. Mix the samples from the same kind of soil together in a plastic pail. Do not use a metal pail. Break up any lumps and remove all stones, debris, etc.
8. When the soil is dry, mix and crush it so all the soil is the size of rice or smaller. Do not mail wet soil. Air-dry the soil if necessary. Do not use artificial heat (such as radiators or ovens) to force-dry the soil.
9. Place one cup of the well-mixed soil into the plastic bag included in the soil test kit. Seal it completely. Do not pour extra loose soil inside the envelope.

KNOW WHAT'S IN YOUR SOIL

Knowing what is in your soil is key to having a safe and healthy urban farm. If your property was used for any of the below activities, or you just want to be careful, you may wish to follow the guidelines in this brochure.

Property Use	Chemicals
Agriculture	Nitrates, pesticides, herbicides
Vehicle Services: car wash, repairs, parking lot	Metals, tar, crude oil, salt, solvents, and Surfactants (wetting, dispersing, or emulsifying agents), petroleum and combustion products
Dry Cleaner	Solvents
Buildings: Commercial or industrial	Asbestos, petroleum products, lead paint, fire retardents, solvents
Junk yard	Metals, petroleum products, solvents, sulfate
Machine shops & metal works	Metals, petroleum products, solvents, surfactants
Buildings built before 1978	Lead
Former burning areas: coal, oil, gas, or garbage	Metals, lead, asbestos, tar, cruel oil, petroleum products, creosote, combustion products
Stormwater drains or retention basins	Metals, bacteria, pesticides, herbicides, petroleum products, salt, solvents
Storage Tanks: Underground & above ground	Pesticides, herbicides, petroleum products, solvents
Wood preserving	Metals, petroleum products, phenols, solvents, sulfate
Areas of chemical concentration: Dumps, industrial lagoons or pits, railroad tracks and yards, research labs, etc	Fluoride, metals, nitrates, pathogens, petroleum products, phenols, radioactive substances, sodium, solvents, sulfate
Next to high vehicle traffic areas	Lead, zinc, tar, crude oil