



Gardening is a fun and healthy way to grow plants, fruits and vegetables close to home. Unfortunately, some urban garden sites may have unwanted contaminants in the soil. The following safety tips provide information about selecting and preparing a garden site in your back yard or community lot.

Is soil in New York City suitable for gardening?

Soil in New York City may contain chemical contaminants. Some chemicals may be in the soil naturally but most are present because of past human activities such as manufacturing, construction, pesticide application, and even residues from automobile exhaust. Common contaminants in New York City soils include lead, polycyclic aromatic hydrocarbons (PAHs), arsenic, and occasionally, chlorinated pesticides. These chemicals may be present at high levels and may pose a risk to human health.

Should I test my soil before planting a garden?

Think about the location and site history—is the garden in or next to an area that has:

- painted structures
- landfills (now or in the past)
- gas stations
- auto body repair shops
- dry cleaners
- busy roadways
- bridges
- elevated rail lines
- power plants
- other manufacturing or industrial facilities

If yes, then consider testing the soil before planting or use raised garden beds filled with clean, imported soil. This is especially important if you want to grow edible plants.

What is a raised garden bed?



A raised garden bed is a box that contains clean soil and is built over existing soil. Typically it is made from wood, stone or concrete. It keeps soil warmer, provides better drainage, and requires less maintenance than a traditional garden. If you think or know that your soil is contaminated, put a semi-permeable cloth barrier between the original soil and clean soil that can be purchased from a garden supply or hardware store. Avoid using painted parts, wood treated with preservatives or pesticides such as CCA (chromated copper arsenate) or creosote, and metal. These materials can leach contaminants into the soil.

What are some practical steps for all gardening?

- Wear gloves and wash tools when done
- Wash your hands with soap and water after gardening and before eating
- Change your clothes when finished gardening and remove your shoes before entering your home
- Locate planting away from suspected sources of contamination (*e.g.*, building facade with peeling paint)

- Wash produce well, particularly vegetables with large outer leaves (*e.g.*, lettuce, herbs, and collard greens) before eating
- Peel root and tuber plants (*e.g.*, carrots, potatoes, and onions) before eating. Note that root vegetables should not be grown in potentially contaminated soil as the edible portions of the crops are in direct contact with the soil
- Do not use plants grown in contaminated soil for compost
- Know the composition and source of your mulch, soil, and compost.

How can I keep out unwanted visitors?

Rats, squirrels, raccoons, opossums, birds and other urban wildlife also enjoy eating fresh produce. Although fences will keep larger animals out, rats can dig holes, eat plants, and tear up bulbs. To help block burrowing animals, dig a trench around the plants, line it with mesh wire, and refill the dirt.

- Avoid dense planting and leave a six-inch margin between plants and buildings or walls
- Eliminate wildlife hiding or nesting areas, such as brush piles and tall grass
- Cover your compost pile and keep it in animal-proof containers
- For more information on integrated pest management and keeping rats away: <http://www.nyc.gov/html/doh/html/pest/pest.shtml>
- For more information on raccoons: [Raccoon control information on NYC health website](#)

Should I use chemical pesticides?

If you have a pest, weed, or fungus problem and natural alternatives have been ineffective, select a pesticide by carefully reading the label. The pesticide should be approved for the plant on which you apply it and should be effective against the pest at a specific point in its life cycle. Apply the pesticide following all instructions on the label carefully. Dispose any excess product and empty containers following the instructions on the label.

Resources:

For more information on soil testing, planning a garden, and many other gardening topics, visit the website of the Cornell University Cooperative extension at <http://www.gardening.cornell.edu/> or call your local cooperative extension. In New York City, visit cenyc@cornell.edu or call 212.340.2928.

For more information on composting, gardening and recycling, visit the United States Environmental Protection Agency at: <http://www.epa.gov>

For information on New York City composting and how to start composting yourself, visit the NYC Department of Sanitation website at: http://www.nyc.gov/html/nycwasteless/html/resources/links_compost.shtml

For information on joining a community garden and other horticultural events visit the NYC Department of Parks and Recreation website at: <http://www.greenthumbnyc.org/>