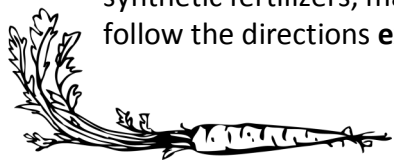




Safe Gardening Practices

- ❖ Test your soil before you start to dig
- ❖ If soil tests come back with lead or heavy metals, grow in raised beds or containers with clean soil
- ❖ Plant as far away from the sides of structures and busy streets as possible
- ❖ Wear gloves while gardening
- ❖ **Always** wash hands after gardening and before eating
- ❖ To remove traces of soil particles, wash, scrub, and peel vegetables before eating or cooking
- ❖ Mulch around plants and between vegetable beds to keep dust down
- ❖ Use organic materials to maintain a healthy, neutral pH level in soil. This will lessen lead mobility in the soil and make nutrients available to plants
- ❖ Use organic alternatives and natural herbicides to control pests and weeds
- ❖ Plant flowers and native plants to attract beneficial insects – many are predators of pests
- ❖ If you find that you cannot do without pesticides and herbicides and synthetic fertilizers, make sure you follow the directions **exactly**.



More about Mill City Grows and TURI

Mill City Grows fosters food justice in Lowell by creating and supporting safe urban food production sites, providing opportunities for residents to grow their own food, and increasing residents' ability to purchase locally grown food.

For more information visit:
www.millcitygrows.org

The Toxics Use Reduction Institute (TURI) at UMASS Lowell provides resources and tools to help make the Commonwealth a safer and more sustainable place to live and work.

For more information visit:
<http://www.turi.org/>

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97 Central Street, Unit #302
Lowell, MA 01852
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**ORGANIC
GARDENING
IS
HEALTHY
GARDENING**



Providing Fresh and Delicious Produce while Keeping You and Your Family Safe



Materials developed under a grant from the Toxics Use Reduction Institute, UMASS Lowell

Gardening is a very rewarding activity for the whole family, providing exercise, stress relief, fresh, nutritious food, and so much more.

But without the proper information, it can be more harmful than helpful.

Take the time to get educated about the risks and some simple solutions.

Hazards of Garden Chemicals



Lead Poisoning

Did you know? Lead can do permanent damage to children, preventing their full development in terms of behavior, learning, and hearing. Lead is commonly found in urban soils, especially near busy streets and beside houses where paint chips and auto exhaust may have been absorbed by the soil. Exposure to lead in the garden comes from soil particles on vegetables, as well as lead dust from bare soil.

Alternatives: Always test your soil for lead and take steps to protect your crops from uptake. Plant in containers or raised beds with clean soil. More information can be found at <http://soiltest.umass.edu>



Pressure-Treated Lumber

Did you know? Chromated copper arsenate (CCA) and alkaline copper quat (AKQ) wood is treated with arsenic to last longer than natural lumber. Arsenic can be leached into soil during rainfall and be absorbed by growing plants. Railroad ties also contain harmful chemicals that can leach into soil.

Alternatives: Use untreated natural lumber instead, and chose rot resistant types of wood like Spruce or Cedar. Natural wood preservatives can also be applied to extend the life of untreated lumber. Natural linseed oil can be applied to make wood more weather resistant, but make sure there are no chemical additives. Thicker cuts of lumber, while more expensive, will last longer in the garden.

Synthetic Fertilizers

Did you know? Children living in homes that routinely use synthetic fertilizers on their lawns have been found to have a rate of leukemia six times higher than that of children who live in houses that do not use synthetics. Additionally, chemical fertilizers leave the soil exhausted, lacking in nutrients, minerals, and beneficial soil organisms. These chemical fertilizers supply quick fixes of macronutrients to plants, without building soil's natural capacity to support healthy plants.

Alternatives: Follow recommendations on soil test results, and add naturally rich materials to your garden. Start a compost pile to recycle household food waste into a valuable soil amendment. Compost improves soil texture while supporting healthy soil biology. In turn, the bacteria and fungi in the soil support healthy plants! For more info on home composting visit: www.lowellma.gov/depts/recycle/composting

Herbicides and Pesticides

Did you know? Chemical weed and insect treatments are toxic to all living things, including people, pets, beneficial insects and healthy soil microbes. Many studies have shown the harmful effects of these chemicals on people, including cancer, neurological damage, and birth defects. Many of the chemicals sold to the general public are not properly applied, increasing risks of exposure. Whatever is lethal to a pest or a weed will cause harm to adults, and even more severely impact children.

Alternatives: When dealing with unwanted plants, pull them early in the spring to keep from spreading. Stubborn weeds can be smothered with layers of newspaper and cardboard. Applications of household items can be very effective at eradicating weeds when they are still small: pour boiling water on weeds to knock them out, or spray them with a 1 part vinegar 1 part water mixture.

Dealing with insect pests can be done without chemicals. First, identify your "Pest." You may discover that the insect is not a threat but a predator of plant-damaging insects. Hand pick the bad bugs early in the day; crush or knock into a cup of soapy water. Simple homemade remedies can be made from household items: mix 1 tsp biodegradable liquid dish soap with 1 cup vegetable oil; shake until well blended. Add a quart of water and you have a homemade insect spray. Apply directly to soft-bodied bugs like aphids and white flies.

