

Chemicals

One way to reduce chemical use is to build and maintain good quality soil. Chemicals may also harm beneficial soil organisms. Good soil will produce healthy vigorous plants that need less fertilizer and are more resistant to pests and diseases.

- Start a compost pile for yard and garden waste, leaves, and fruit or vegetable scraps from the kitchen.
- Add compost and other organic amendments to soil, and use organic mulch.
- Minimize bare soil and prevent erosion.
- Avoid compacting soil.

Many home gardeners over-fertilize. Too much fertilizer can lead to weak excessive growth that is more prone to problems. Fertilizer is important mainly for container plants. Fertilize beds of flowers and vegetables only if necessary (get a soil test first). Fertilization is rarely necessary for established trees and shrubs.

To reduce use of herbicides for weeds:

- Mulch to discourage weeds.
- Keep weeds pulled and never let them go to seed.
- Use weed killers with discretion.

To reduce use of pesticides for insects and diseases:

- Choose resistant varieties and varieties suited to local conditions.
- Monitor garden to catch problems early when they can be dealt with more easily.

- A small amount of damage will usually not harm the plant, and having a few pests in the yard will help attract and maintain a population of beneficial insects that will help control pests naturally.
- Avoid broad spectrum insecticides if possible. These kill beneficial insects as well as pests.
- When necessary, select the least toxic product that is effective, apply only to affected plants, and follow all label directions.

Dispose of all chemicals properly.

Tools & Equipment

While sometimes necessary, gas powered equipment consumes fossil fuel, pollutes the environment, and is noisy. Use manual tools whenever possible. For more efficient operation, keep mowers and other power equipment well-maintained.

The purpose of this brochure is simply to help you think about what you're doing, and maybe do a few things a bit differently in the future. Enjoy your garden, and do what you can to help protect the environment that sustains it.

More information on some of the topics discussed here is available in brochures such as [Beneficial Insects](#), [Home Composting](#), [Using Native Plants in the Garden](#), and many others, available at <http://web.extension.illinois.edu/hkmw/hort.html>

For more information on gardening please visit:
<http://web.extension.illinois.edu/state/horticulture/index.php>

or
call University of Illinois Extension
Knox County Office
309-342-5108

Other information brochures can be found online at <http://web.extension.illinois.edu/hkmw/hort.html>

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Environmentally Friendly Gardening



Garden Tips

from
Knox County
Master Gardeners



Many people are concerned today about doing more to protect natural resources and reduce environmental pollution. Gardening in a way that preserves resources and contributes to the health of the ecosystem can be a part of this effort. This includes activities that build and protect soil quality, as well as reduced use of water, chemicals, and fossil fuels. Chemicals include fertilizers and pesticides (substances that protect plants from insects and disease organisms, as well as herbicides or weed killers). In addition to the environmental benefits, these ideas can save the gardener money and effort, and reduce home heating and cooling bills.

Reading about all the things you can do can often be overwhelming. You don't have to do everything, or make changes all at once. Even a few small changes can make a difference.

It also helps to relax your idea of the perfect garden. Plants can often tolerate a small amount of damage from diseases or insects, and your gardens and lawn can still be attractive even if they aren't 100% weed-free.

Planning & Planting

Right Plant Right Place - you hear it often. Choosing plants whose needs are matched to the conditions your site provides will result in healthier plants with less need for extra water, fertilizer, and pesticides (and less work for the gardener!). Choose plants that perform well without constant maintenance and that are less susceptible to pests and diseases. Grouping plants with similar needs together will help minimize wasted resources.

Consider using native plants. They are adapted to the local environment and may be more tolerant of native pests and diseases. The deep root systems of many prairie natives help the plants withstand drought and also help hold soil to reduce erosion and water runoff.

Buy locally grown plants if possible. Plants are better adapted to local conditions and shorter shipping distances reduce fuel use and pollution. Look for biodegradable pots, or reuse or recycle plastic pots. Rather than buying pots or flats for starting seeds, use egg cartons or recycle yogurt, sour cream, takeout, or any other container (make sure to provide drainage). Grow your own vegetables, or buy from local growers who use environmentally friendly growing methods.

A "Greener" Lawn

The lawn can be one of the biggest consumers of resources in the home landscape. But you can drastically reduce the negative impact of your lawn by changing the way you care for it. The goal is to maximize health and growth with minimal input of water, fertilizers, herbicides, and other pesticides. Excess fertilizer may promote rapid top growth at the expense of root growth and plant health.

Lawns can become dependent on chemicals. There may be a transition period after you reduce chemical use when the lawn looks worse, but the end result will be a healthier, more resilient lawn.

Choose a grass mixture suited to the conditions of your site. There are new varieties available that thrive with less

care and fewer added resources. If grass will not grow don't try to force it - use ground cover or mulch instead.

Consider letting your grass go dormant in summer. If you must water, water deeply and less frequently. Frequent shallow watering promotes shallow roots, making the plants less tolerant of drought.

Instead of treating the whole lawn with a weed killer, spot treat or pull or dig weeds. Don't let weeds go to seed.

To reduce mowing time and effort, mulch around trees and design beds and lawn areas with sweeping curves. Don't mow more frequently than necessary. Mow high - more grass blade surface helps promote deeper, healthier roots. Use a mulching mower and leave clippings on the lawn to decompose. This will add nutrients and reduce the need for fertilizer. Keep mower blade sharp to reduce damage and stress on plants.

Trees & Shrubs

Trees improve air quality and provide habitat for wildlife. Properly placed deciduous trees will shade the house in summer and allow sunlight into the home during winter, reducing home energy costs.

Choose and locate trees and shrubs so that they maintain their desired shape without excessive pruning. If it does become necessary, pruning using recommended techniques and timing will result in a healthier plant.

The method you choose to deal with fallen leaves will depend on the size of your yard and the amount and type of leaves. Whatever you do, don't send them to the landfill with your trash. Many towns pick

up leaves in fall (as well as other yard waste) and take them to a municipal composting facility. Burning leaves is allowed in some locations, but causes pollution and can cause or aggravate many health problems.

Leaves can also be a valuable resource in the garden. If you only have a few leaves, they can be left on the lawn or used for winter protection of plants. Use a mulching mower or shred larger leaves. Shredded leaves can be added to the compost pile.

Water

There are many things you can do to reduce water usage:

- Water only when needed and only where needed.
- Water deeply and less frequently. This helps develop deeper roots that help plants withstand drought.
- Use soaker hoses, drip irrigation, or spot watering instead of sprinklers.
- Water early in the morning to reduce evaporation loss. This also helps prevent diseases.
- Mulch plants to preserve soil moisture and reduce erosion and water runoff.

Slowing down or reducing water runoff from your property can reduce water loss and soil erosion. Runoff containing chemical residues can harm water quality and damage aquatic life.

- Collect rainwater in barrels.
- Plant a rain garden.
- For larger areas, build a retention pond.
- Reduce hard surfaces or use permeable pavement.
- Stabilize slopes with plantings or terracing.