



ECO-GARDENING



Tips for the Home Gardener

Ecological gardening (eco-gardening) emphasizes using environmentally-sound gardening techniques for a positive ecological impact. Read the following tips to learn about eco-gardening practices for your home garden.

“Green” Cultural Practices

An environmentally-friendly landscape can begin with some simple changes in gardening techniques. In addition to having a positive effect on the landscape, most of the below practices will make gardening easier on you as well as your wallet.

- ☞ Plan your garden’s layout so plants are in the best location for optimal growth. This will reduce future pest, disease, and maintenance problems, as well as the amount of money you spend on corrective measures. For example, if the garden has clay soil, use plants that grow particularly well in that condition.
- ☞ Recognize weeds early and remove them before they have time to flourish. Be sure to cut down the weeds before seeds have the chance to set.
- ☞ Use organic fertilizers. These slow-release fertilizers last longer, provide steady nutrition for plants, and do not disrupt the soil’s natural chemical balance. Fish emulsion, liquid seaweed, and bone meal are just some of the organic fertilizers available to home gardeners.
- ☞ Compost your garden waste. Composting provides a way to turn yard waste and kitchen scraps into a nutritious soil mix for your garden. For more information on composting, see Longwood’s [Tips for the Home Gardener: Composting](#).
- ☞ Use soaker hoses or drip irrigation to put water only where it is needed, avoiding water loss due to evaporation.
- ☞ To control pests in your garden, employ Integrated Pest Management (IPM), which combines cultural practices, biological controls, and reduced-risk chemicals to control plant damage. For information about using IPM, see Longwood’s [Tips for the Home Gardener: Integrated Pest Management](#).

Xeriscaping

Xeriscaping, or landscaping with drought-tolerant plants, can help conserve water in your garden. The leaves of drought-tolerant plants are waxy or covered in the fine hairs to conserve moisture, and the roots often grow deeply to search for water. These special adaptations allow the plant to perform well even during extend periods of little or no moisture.

In your home garden, use these tough plants to reduce the need for extra irrigation, especially when water is scarce.

Trees for a Natural Cooling Effect

When used in the landscape, trees can provide welcome relief from the hot summer sun. Trees that shade the house will lower indoor temperatures in the summer and reduce energy costs. For maximum effect, plant shade trees to the south and west of buildings. Using deciduous trees (those that drop their leaves in the fall) will allow winter sun to filter through, providing warmth and light.

Gardening with Native Plants

Native plants offer an infinite variety of colors, sizes, shapes, and textures for the garden. When planted in a site that meets their cultural requirements, natives will usually perform better than exotics with less need for fertilizer, extra irrigation, and pest control measures.

By landscaping with plants native to your region of the country, you can help preserve species that are being lost in vanishing natural areas. Many of these plants are critical food sources for native wildlife. In addition, choosing native plants over exotics will reduce the risk of exotic invasive escaping to wild areas and out-competing the native flora.

The Benefits of Mulching

Applying mulch is a labor-saving measure that conserves moisture, suppresses weeds, and helps keep soil temperature uniform, especially during the extremes of summer and winter. A layer of mulch over your planting beds will also encourage fibrous root development, improve water infiltration by preventing the soil from crusting, and help prevent mud from splashing onto plant leaves and flowers. In addition to the above benefits, organic mulches (e.g. wood chips, leaves, hay) can improve soil fertility.

For best results, apply mulch no more than 3"-4" deep in landscapes and 2"-3" deep in flower gardens. You should leave some space around the base of the plants to allow good air circulation.

To help protect the trunks of trees and shrubs from lawn mower and trimmer damage, apply a 2"-4" layer of mulch that extends well beyond the original planting hole. Avoiding using too much mulch, especially right up against trunks or stems, as damaging insects or rodents may seek out these areas for nesting.

Tips for an Eco-Friendly and Low-Maintenance Lawn

- ☞ Choose your turf. New varieties can better tolerate drought, resist disease, and defend against pests. Look for cultivars that have been bred to retain a deep green color with less fertilizer. Slow-growing grasses require less mowing.
- ☞ Avoid over-fertilizing. Too much nitrogen makes grass too succulent and susceptible to disease.
- ☞ Mow often. Removing only $\frac{1}{3}$ of the grass blade each time reduces stress on the plant.
- ☞ Prevent disease by mowing with sharp blades, and only when the grass is dry.
- ☞ Set your mower height to 2 $\frac{1}{2}$ " to 3". Taller turf supports a healthier, stronger root system and helps prevent weed seeds from getting the light they need for germination.
- ☞ Leave clippings where they lie to recycle nutrients and organic matter back into the soil.
- ☞ Water wisely. Early-morning watering helps prevent disease. Watering generously encourages deep, productive roots.

Examples of Native Plants

Annuals

Black-eyed Susan *Rudbeckia hirta*
Melampodium *Melampodium divaricatum*
Sunflower *Helianthus annuus*

Perennials

Virginia iris *Iris virginica*
Meadow rue *Thalictrum rochebrunianum*
Labrador violet *Viola labradorica*

Ornamental Grasses

Big bluestem *Andropogon gerardii*
Sideoats grama *Bouteloua curtipendula*
Purple-top *Tridens flavus*

Herbs

Sage *Salvia* spp.
Purple coneflower *Echinacea purpurea*
Wild yam *Dioscorea villosa*

Trees & Shrubs

Juniper *Juniperus communis*
Red maple *Acer rubrum*
White oak *Quercus alba*

Ground Covers

Moss pink *Phlox subulata*
Wild stonecrop *Sedum ternatum*
Allegheny spurge *Pachysandra procumbens*

Attracting Wildlife to Your Garden

Wildlife will add energy and color to your garden, and some wildlife, such as birds, toads, and bats will provide the additional benefit of dining on damaging insects. See below for tips on providing a haven for beneficial wildlife in your garden.

Toads

Toads love to eat slugs and bugs, and can consume up to sixty insects each night.

- ☞ Start with tadpoles, as transplanted adults often try to find their way home.
- ☞ Provide a safe place for adults to rest during the day, such as an inverted flower pot with a hole in one side, or a flat stone over a small depression.
- ☞ Offer a watering hole for toads to reproduce, especially during through early spring and summer. A small, shallow, man-made or natural pond is ideal.



Birds

Birds can be as enjoyable in a garden as the plants themselves, and many species of birds will help control harmful insect populations. Designing a landscape to include appropriate food, shelter, water, and nesting places will attract birds to your garden and help replace resources that are vanishing in wild habitats. Research the needs of different birds to find out how to best attract them to your garden. For instance, hummingbirds feed while in flight, and prefer tubular flowers that hang or protrude from the flower stalks. Red, orange, and yellow flowers most often contain the nectar they seek.



Butterflies

If you relish the beauty of these fluttering insects, here's what you need for a butterfly-friendly garden:

- ☞ Sunlight: Butterflies need the sun's warmth to fly.
- ☞ Protection: Avoid insecticides that could harm the larvae or adults. Choose a site that's protected from the wind.
- ☞ Mud puddles: Butterflies need water and are attracted to the salts in mud.
- ☞ Food: Butterflies eat nectar, and are most attracted to fragrant flower with bright colors such as purple, yellow, pink, and white. In your garden, include a range of plants with different bloom times to ensure that food is available throughout the season.
- ☞ Tolerance: Butterflies come from caterpillars, and caterpillars eat leaves, so be willing to tolerate some foliage damage in your garden.



Longwood's Example Garden

Visit Longwood's Example Garden to see how you can employ eco-gardening practices in your home garden. Plants from each of the ten display areas in Longwood's Idea Garden are featured in both a suburban and urban garden setting. You can gain inspiration from the array of plants and garden structures that have been chosen for a variety of spaces and site functions with the aim of minimizing environmental impact.