



Green Gardening Tips

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Here are several ideas how you can practice “green gardening”, avoiding or lessening negative impacts on the environment and climate. In some cases you may be having a positive impact.

Put as little as possible into the local landfill. Recycle cardboard, cans, and compostable materials. Wash and reuse plastic pots, or return them to your local garden store for their use if they have such a program (if not, perhaps you might encourage them to do so). Using clay pots or natural-based ones (such as peat pots or ones from coir fiber), where possible, avoids using plastic pots originally derived from fossil fuels.

Start a compost pile. Add to your compost grass clippings, dead leaves, plant residues, and other organic matter. Add vegetable kitchen scraps, but not meat scraps. Use the compost to enrich the soil and to improve plant growth. Make sure you turn the pile often, and add the right proportion of ingredients (carbon and nitrogen sources), to ensure you get good quality compost.

Use alternative controls for pests and diseases. These might include biological organisms. The pesticide Bt, made from a bacterium that attacks specific caterpillars, is a good example. Mechanical controls include such methods as picking off beetles, and trapping slugs under boards or in beer. Cultural controls include more spacing to promote air circulation and reduced disease, or even proper mowing to lessen turfgrass diseases.

Apply pesticides and other horticultural chemicals only as a last resort. When using, use them prudently, read all label precautions and follow label directions. Scout your susceptible plants at least weekly for pests, and deal with them before they get out of control. Realize that pests in low levels may do little harm. Diseases may be a result of poor culture. Look for disease resistant varieties. When using chemicals, choose least toxic ones. A diversity of plants, even some weeds, can promote beneficial insects. Using pesticides may kill them.

Store any pesticides properly, and dispose of old ones or empty containers safely. Keep them in areas or cabinets where children and pets can't get at them, or spill them by accident. Have materials such as kitty litter and plastic bags handy in case they do spill. Check with local waste disposal facilities on proper handling to dispose of old chemicals and empty containers.

Use cover crops and mulches instead of herbicides. Cover crops and organic mulches keep weeds down, as well as adding valuable organic matter to soils. Synthetic weed barriers are good around annuals, trees, and some shrubs, but not perennials (they keep them from their natural spreading). Keep in mind some of these fabrics need mulch on top to keep them from breaking down in sunlight, and they are usually made from fossil fuels.

Minimizing tilling of soil and disturbance, or using no-till, will keep weed seeds from reaching the surface where they germinate in the light. Less or no tilling is better for soil structure too, and reduces the decomposition of organic matter which traps or “sequesters” carbon so it doesn't end up as carbon dioxide in the air. Instead, use good soil practices to foster earthworm activity. According to Cornell researcher David Wolfe, earthworms can move 20 to 30 tons of soil over an acre, per year.

Use fertilizers only as needed. Use organic forms if possible and available. Good compost and organic matter in soils lessens the need for fertilizers. Synthetic fertilizers (particularly phosphorus) can add pollution to waterways if overused, and require fossil fuels to manufacture. For every ton of nitrogen fertilizer made, 4 to 6 tons of carbon dioxide equivalents are emitted. Some of nitrogen fertilizer enters the atmosphere as nitrous oxide with 300 times the harmful warming potential as carbon dioxide. The natural gas used to manufacture 200 bags of lawn fertilizer would heat an average home for a year. Each 40-pound bag of fertilizer contains the fossil-fuel equivalent of 2.5 gallons of gasoline. Get a soil test kit from your local Extension service office. Test your soil yearly if possible, and different areas of your landscape if they have different crops and culture. You may find you need to add little if any fertilizer, or only certain elements.

Reduce nitrogen use on lawns. This will have a large impact since lawns consume so much acreage of the developed world. Use mixes with higher percentages of less nitrogen-hungry fescues. Use clover (legume) grass mixes, as these help replace soil nitrogen. Leaving grass clippings recycles organic matter and nutrients back to the soil. If you do collect grass clippings, they're a great addition to your compost.

Mow properly. This means regular as needed, and high (three inches for an average lawn mix). During summer when soil is moist and grass is growing, you may need to mow twice a week. However, I often see many still mowing as much during dry periods when grass isn't growing. Then you may get by with mowing every 10 to 14 days. Mowing high keeps grass less stressed, resulting in fewer if any chemicals for problems.

Develop a landscape plan to minimize mowing. Even making curved edges to beds, rather than sharp corners, and avoiding cul-de-sacs of lawn will minimize mowing. Large areas under trees are often better suited to massed groundcover plants than lawns. Leave large sunny areas that aren't heavily used unmowed, or mow only once or twice a season. Consider adding wildflower meadows, keeping in mind these can be difficult to get established and last long term.

Use "green" tools and equipment. If you can use a rake or broom or hand edgers, avoid the power blowers and string trimmers. This gives you exercise as a benefit, and for the environment lessens the use of fossil fuels, air pollution, and noise pollution. If a small lawn, consider an electric or even reel push mower. If you have an older lawn mower, upgrade to a newer one if feasible as these pollute less. Keep in mind the pollution from one hour of lawn mowing has been equated to driving a car 100 to 200 miles. An estimate from Yale University is that more than 600 million gallons of gas are used yearly in the United States just to trim and mow lawns. Small engines like leaf blowers and trimmers often pollute more than mowers.

Conserve water. Water may become a key crisis of this century. Almost three dozen states in some years experience water shortages. Use mulches to conserve water. Soils with lots of organic matter require less water. In very dry areas, plant drought tolerant or xeriscape plants. Use trickle or drip water systems, and only as needed. Overhead watering can waste up to half the water just to evaporation into the air.

Install a rain garden. These are gardens designed to capture storm water runoff, allowing it to gradually percolate into the soil while filtering out sediment. Up to 70 percent of pollution in our waterways in some areas has been attributed to storm water. Vegetated swales allow sediment and contaminants to settle out while the runoff water moves through them. Clay soils are not good for these, sandy soils being ideal. A mix of native perennials and shrubs can make such gardens quite lovely. Keep them watered until established, and weeded, as you would other gardens. (www.uvm.edu/seagrant/publications)

Choose landscape plants and plans to minimize maintenance. Allow shrubs to grow natural, and choose ones for shapes desired. This will lessen or avoid trimming (usually done with electric or gas-powered hedge trimmers.) Avoid planting trees and shrubs that will shed leaves where not desired, so will need removing (such as with leaf blowers). Choosing the right plants for the right site can avoid excess use of fertilizers and soil amendments.

Use landscaping to reduce home energy use. Shade trees have been estimated to reduce energy used for air conditioning by 15 to 50 percent. The net cooling effect of a young, healthy tree equals ten room-size air conditioners operating 20 hours a day. Ground temperatures can drop by 36 degrees in as little as five minutes when shaded. Deciduous trees, those that lose their leaves in winter, shade homes in summer and allow warming from sun in winter. Evergreens planted on windy sides of buildings act as a windbreak, reducing winter heating bills up to 25 percent. Use solar-powered lights for night lighting.

Create wildlife habitats and food sources with your landscaping. For food plants choose plants to provide seeds, berries, nectar, nuts, fruits, sap, or even pollen. For water, provide a bird bath (even one heated in winter), a small water feature or water garden, and even shallow water puddles for butterflies. For cover, provide evergreens, dense shrubs, thickets, wood or rock piles, a wooded area, and groundcovers. A diversity of plants and habitats is ideal.

Plant trees. In one year, an average tree produces enough oxygen for a family of four. One tree will absorb the carbon dioxide from four cars, every year. Planting trees remains the cheapest and most effective means of drawing excess carbon dioxide from the atmosphere. Trees also reduce energy use around buildings as already cited. They are the main host for insects needed to feed our songbirds.