Resources

Call Metro Recycling Information at **503-234-3000** for information about the following:

Natural gardening: a guide to alternatives to pesticides: Manage pests, diseases and weeds in your garden without using chemicals.

Natural gardener's shopping guide: Nontoxic gardening products and where to buy them.

Fact sheets on how to deal with specific pests and garden problems:

- Weed management for the lawn and garden
- Protecting your plants from slugs
- Lawn care
- Garden insect pests
- Choosing fertilizers for the lawn and garden
- Managing tent caterpillars without chemicals
- Aphids – safe and successful control
- Protecting your home from carpenter ants
- Managing fleas in your home
- Clothing moths: prevention and control
- Spiders, ants, flies and cockroaches: four common household invaders.

Natural gardening seminar schedule: Learn to garden using fewer chemicals.

Metro | *People places. Open spaces.*

Clean air and clean water do not stop at city limits or county lines. Neither does the need for jobs, a thriving economy and good transportation choices for people and businesses in our region. Voters have asked Metro to help with the challenges that cross those lines and affect the 25 cities and three counties in the Portland metropolitan area.

A regional approach simply makes sense when it comes to protecting open space, caring for parks, planning for the best use of land, managing garbage disposal and increasing recycling. Metro oversees world-class facilities such as the Oregon Zoo, which contributes to conservation and education, and the Oregon Convention Center, which benefits the region's economy.

Your Metro representatives
Metro Council President – David Bragdon
Metro Councilors – Rod Park, District 1; Carlotta Collette, District 2; Carl Hosticka, District 3; Kathryn Harrington, District 4; Rex Burkholder, District 5; Robert Liberty, District 6.

Auditor – Suzanne Flynn, CIA

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Garden naturally without using harmful chemicals

Simple steps to a healthy lawn and garden

Metro | *Healthy homes. Healthy families.*

Six simple steps to a healthy lawn and garden without using harmful chemicals

A healthy lawn and garden is the best way to combat weeds, diseases and pests. Relying too much on fertilizers and pesticides may be a symptom of an underlying problem in your lawn and garden and can make problems worse.

In addition, fertilizers with high levels of quick-release phosphorus and nitrogen can pollute streams, rivers and other waterways. This impacts the health and habitat of water-dwelling creatures such as fish and amphibians.

Pesticides such as insecticides, herbicides and fungicides are used to control insects, weeds and diseases. Many such chemicals are toxic and can pose a threat to people and pets, especially if overused or carelessly applied. They also can kill beneficial insects, earthworms, birds and other organisms, disrupting the ecological balance of your lawn and garden.

To prevent problems before they happen, follow six easy steps to grow a healthy garden without using pesticides or other chemicals.

STEP 1 Build healthy soil

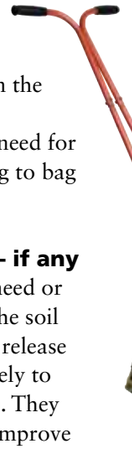
Healthy soil is the foundation for healthy plants and lawns. Healthy plants naturally resist diseases and pests and therefore require less care. How do you make soil healthy? Adding organic material improves drainage and provides food to the microscopic creatures that provide nutrients to your plants. Add one-half to 2 inches of compost or aged manure every year by turning it into the soil or using it as mulch around plants.

A soil test is one way to determine how much fertilizer you need or whether it's required at all. Organic fertilizers are made from naturally occurring materials such as alfalfa, seaweed and rocks – not synthetic chemicals. Why organic fertilizer? Most organic fertilizers will last longer in the soil and are less likely to run off into waterways. In addition, many contain a broader range of nutrients needed by plants. They also better support a wide array of beneficial soil organisms that continually generate nutrients for plants from rocks, plant matter and even the air.

Whether you decide to use organic or synthetic fertilizer, it will work better with compost.

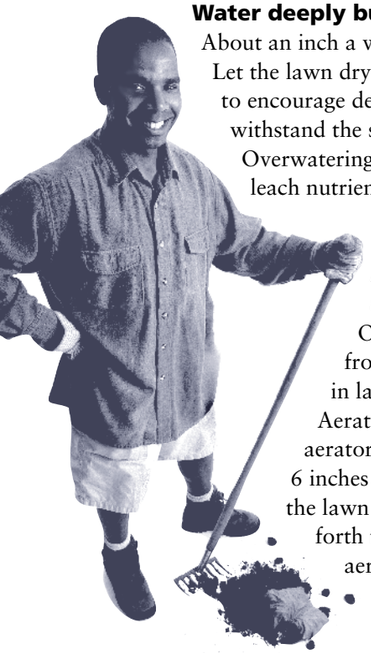
Avoid using too much fertilizer. Overfertilizing is bad for plants. Plus, excess fertilizer can pollute waterways. Remember, too, not to fertilize right before a heavy rain.

STEP 2 Rethink your lawn



Grasscycle. Grasscycling is the practice of leaving grass clippings on the lawn. Regular grasscycling releases nutrients back into the lawn and reduces the need for fertilizers. You'll also save time by not needing to bag and dispose of clippings.

Use organic or slow-release fertilizer – if any at all. Fertilize only if a soil test indicates a need or if your lawn is looking extra pale even after the soil warms in spring. Organic fertilizers generally release nutrients over a longer period and are less likely to run off your lawn into waterways after a rain. They also support a variety of soil organisms that improve fertility and combat diseases. A healthy lawn is a light meadow-green color. A blue-green lawn indicates excessive nitrogen use. This leads to more growth on the top of grass at the expense of the roots, which can make your lawn more vulnerable to disease and pests.



Water deeply but infrequently. About an inch a week is all a lawn needs. Let the lawn dry out between waterings to encourage deep roots that will withstand the stress of drought. Overwatering can promote disease, leach nutrients from the soil and waste water.

Aerate, overseed and use compost. Older lawns can benefit from a little extra help in late spring or early fall. Aerate using a rented power aerator, or push a garden fork 6 inches deep every 4 inches into the lawn and work back and forth to loosen the soil. After aerating or raking to expose soil, overseed with a rye/fescue mix designed for Pacific Northwest conditions. Finally, top dress with fine weed-free compost about a quarter-inch deep. Use of compost will improve the condition of soil and allow for better drainage and water retention, thereby reducing watering needs. These activities will encourage a thicker lawn, which will help crowd out weeds.

Skip the weed and feed. Weed and feed contains weed killers that may damage soil and lawn health, as well as pollute waterways. There also is evidence that pesticides may harm humans, pets and wildlife. Why use weed killer over the entire lawn if you only need to get rid of a few weeds? If your lawn is healthy, weeds will have less opportunity to take root. Accept some weeds, such as clover – a soil enhancer – and remove others by hand in spring and fall when the soil is damp. Always sprinkle a little grass seed and weed-free compost on the bare spot to help crowd out future weeds. Mow regularly to keep seed heads from developing, or pull them off by hand.

Grow less lawn. Lawns require a lot of fertilizer and water, and large lawns limit plant diversity. Overall, less lawn can mean less work.

STEP 3 Grow plants that thrive in our environment

Choose plants that thrive in the Pacific Northwest soil and climate. A plant suited to its environment will be stronger, healthier and less likely to succumb to diseases or pests. Plant in appropriate places in your yard according to whether the plant needs full or partial sun or shade. Call Metro Recycling Information at **503-234-3000** for a fact sheet on appropriate plants for Northwest landscapes.

STEP 4 Grow a diverse garden

Planting a wide variety of plants in your garden, especially native plants, will create a more balanced ecosystem. This will provide a year-round habitat for creatures that are beneficial to your garden. A natural balance of insects, birds and other wildlife can help control pests. Using pesticides can upset this natural balance and actually increase pest problems.

Planting annuals, perennials shrubs and trees in your garden helps ensure a stable year-round home for beneficial insects and birds. It's a good idea to rotate annual plants from year to year to keep potential pests and soil diseases from getting established in your garden. If possible, practice crop rotation – planting a different crop in each bed every year – for the same reasons.

STEP 5 Get to know your bugs

Not all bugs are pests, and not all pests are a sign of problems. Get to know which bugs are helpful and whether you really need to take action against the ones considered pests.

If there are signs that pests have been chewing on your plants, a little damage won't hurt. Most plants can easily survive losing 25 percent of their leaf surface. Also, many plants can "outgrow" pests or diseases that afflict them, if the soil is healthy. And don't forget that beneficial insects may arrive to help control the pests.

To find out if an insect is beneficial or a pest, refer to books, contact the Master Gardeners, attend a Metro natural gardening workshop or take a sample to a nursery or garden center with knowledgeable staff.

STEP 6 Try nontoxic pest control

If you determine that a pest or disease problem requires intervention, use the safest method possible. There are many ways to control pests without using pesticides. Pick off bugs by hand, use a stream of water from a garden hose to remove aphids and put out traps for slugs. Use barriers to keep pests off your plants – row covers for vegetables, for example. If you need to use a pesticide, choose the least-toxic product possible, such as iron phosphate for slugs.

For more information about specific pests and natural ways to control them, call Metro Recycling Information at **503-234-3000** and ask for a copy of *Natural gardening: a guide to alternatives to pesticides*.