

Natural Yard Care

Five steps to make your piece of the planet a healthier place to live.



King County

Department of
Natural Resources and Parks
Solid Waste Division



City of Seattle
Seattle Public Utilities



Saving Water Partnership

A service of your local water utility

Fourth Edition 2008



Why go natural?

Our yards are our outdoor homes: fun, beautiful, great spaces for relaxing. But in taking care of them, we often use water inefficiently, produce a lot of yard waste, and overuse chemicals that are bad for the environment and our families' health.

The good news is, by making some simple changes in how we care for our yards we can:

Save Money on water, waste disposal, and chemicals

Save Time – working with nature is easier, in the long run

Protect our families' health by reducing contact with chemicals

Protect the Environment

- Conserve our precious water supplies, and leave more in rivers for salmon
- Keep our streams and lakes clean by reducing the need for chemicals
- Recycle yard trimmings into free fertilizer



**Make a healthy,
beautiful yard...
without working
too hard!**

Put nature to work in your yard

Nature wastes nothing. In natural landscapes, soil life recycles dead plants into food for new plant growth. Plants are adapted to the water, sun, and soil available in their site. And the wide variety of plants, soil organisms, insects, and animals keeps most pests and diseases in check.

By working with nature in your yard, you can have a great looking landscape that's easier to care for and healthier for families, pets, wildlife, and our great Northwest environment.



How? It's easy...

Start with these 5 steps:



1 Build healthy soil



2 Plant right for your site



3 Practice smart watering



4 Think twice before using pesticides



5 Practice natural lawn care

If you have questions or want more information, call the experts at the **Garden Hotline, 206-633-0224**, e-mail help@gardenhotline.org or see the resources at the end of this guide.



1

Build healthy soil with compost and mulch



Soil is alive, and soil life matters.

A teaspoonful of healthy soil contains about 4 billion organisms! This community of beneficial soil creatures keeps our landscapes healthy by:

- Creating a loose soil structure that allows air, water, and plant root growth into the soil
- Recycling nutrients and making them available to plants
- Storing water until plants need it
- Protecting plants from pests and diseases

Get to know your soil. Dig in and take a look.

Use a trowel or shovel to dig 8-12 inches deep. You may find sand (which doesn't hold water well), clay (which won't let water in or out), compacted layers, or light color (which indicates low organic matter and soil life). Compost improves all types of soil.



Feed your soil with compost.

Dig or rototill in 1-3 inches of compost (up to 20-25% compost in your soil mix) when you're making new beds or planting lawns. Compost works on any soil. It helps sandy soils hold nutrients and water, and loosens clay soils. Compost feeds the beneficial soil life, so it can feed and protect your plants.

Make compost at home, or buy it in bags or bulk.

Leaves, chopped stalks, flowers, and grass all make great compost in a pile or bin – just add water, keep it moist, and wait 6 months. Vegetable kitchen scraps also make good compost, but should be composted in a worm bin or other rodent-resistant container to prevent pest problems.



Mulch it!

“Mulch” is a layer of organic material like leaves, wood chips, compost, or grass clippings that you spread in spring or fall around your plants. (Keep it about an inch away from stems.) Mulch conserves water, prevents weeds, and feeds the soil for healthier plants.

Mulch improves:

- **Flower beds and vegetable gardens** Use 1-3 inches of leaves, compost, or grass clippings.
- **Trees, shrubs and woody perennials** Use 2-4 inches of woody mulches, like wood chips (get from a tree service) or bark. Fall leaves also work well.
- **Lawns** Mulch your lawn? Yes, you can “grasscycle” (leave the clippings) and spread compost – see Step 5 on lawns.



Mulch stops weeds, conserves water, and builds healthy soil for healthier plants. Spread mulch several inches deep and 1 inch away from plant stems.

Need fertilizer? Go organic!

Overusing chemical pesticides and fertilizers can damage beneficial soil life, leading to soil compaction and unhealthy plants. Chemicals can also wash off into streams and lakes, where they can harm salmon and other wildlife.

Most trees and shrubs can get all the nutrients they need from the soil, and mulching once a year. But annual plants, vegetable gardens, and lawns sometimes need extra nutrients. When shopping for fertilizers, look for the words “**natural organic**” or “**slow release**” on the bag. Unlike “quick release” fertilizers, natural organic fertilizers won’t wash off into streams so easily, and they’ll feed your plants slowly to keep them looking good longer.



Remember, healthy plants grow in healthy soil.

For more information: Where to buy compost? Which mulch to use? Talk to the experts at the **Garden Hotline**, 206-633-0224 email help@gardenhotline.org or see resources on back cover.



2 Plant right for your site



Get to know your yard.

Where is it sunny or shady at different seasons? Dig in a few places to see where your soil is sand or clay, soggy year 'round or bone dry. Look around – are there plants with problems? Where do you want play areas, vegetables, color, views, or privacy? How much lawn do you need, or want to maintain? What kind of plantings would fit your yard?

Choose the right plant for the right place.

Select plants that grow well in the Northwest and fit the sun, soil, and water available in your yard. Native plants are best near waterways, and also work well on many other sites. Think about how big a tree or shrub will be when mature (especially next to houses or under powerlines). Look around at neighbors' yards, nurseries, books, and demonstration gardens for plants that do well in sites similar to yours.



Pick plants that resist pests and use less water.

Many pest and disease resistant varieties are available now – ask at nurseries or Master Gardener clinics. Choose plants that are “low water use” or “drought tolerant.” After they're established (2-5 years) many will thrive just on our limited summer rainfall most years, saving you time and money on watering.

Group plants by their needs.

Put plants that need full sun, or shade, or rich soil, or regular irrigation together with those with similar needs. That way you don't have to water the whole yard to reach one thirsty plant!

Waterwise Garden at the Bellevue Botanical Garden

Lawns and vegetables are picky!

They need several hours of full sun, level well-drained soil, and irrigation. Limit lawn areas to where you need them. Other plants are better for shade, soggy sites, or slopes, and require less maintenance.

Give plants a good start.

Prepare the soil by mixing 20-25% compost into soil in planting beds. (For trees and shrubs, mix compost into the whole planting bed, or just plant in native soil and mulch well. Don't add compost just to their planting holes – that can limit root growth.) Then spread out the roots, add water, and tamp soil back in for good root contact. Set plants so the soil level is at the same height on the stem as at the nursery, to prevent problems. Mulch new plantings well, and be sure to water even drought tolerant plants during their first few summers, until they build deep roots.



Dig a hole as deep as the root mass and twice as wide, and spread the roots out before planting.

Make space for wildlife.

You can invite birds, butterflies, and other wildlife into your yard, protect shorelines and salmon, and make a more attractive landscape.

- Plant trees and use **native plants**, especially ones with fruit and flowers.
- Avoid exotic plants – check the list of invasive “noxious weeds” at www.kingcounty.gov/weeds.
- Plant in layers (ground cover, shrubs, and trees) so your landscape is like the forest.
- Avoid using pesticides – they can poison birds, beneficial insects, and salmon when rain washes them through storm drains into streams.
- Provide a bird bath or other small water source.
- If space allows, leave dead standing trees and brush piles as homes for wildlife.
- Leave wild “buffer” areas of native plants along ravines, streams, shoreline, and fencelines.



For more information: Which plants grow best here? Where to buy native plants? Ask the experts at the **Garden Hotline, 206-633-0224** e-mail help@gardenhotline.org or see resources on back cover.



3 Practice smart watering for healthier plants



Too much of a good thing

Did you know that watering too much or too little is the cause of many common plant problems in our area? You can have healthier plants, save money on water bills, and conserve precious water by learning to give your lawn and garden just what they need, and no more.

Water deeply, but infrequently.

Most plants do best if the soil is allowed to partially dry out between waterings.

For lawns, a loss of shine or footprints showing indicate that it's time to water. Vegetables and other annuals should be watered at the first sign of wilting, but tougher perennials (plants that live several years) only need water if they stay droopy after it cools off in the evening. Trees and shrubs usually don't need any watering once their roots are fully established (2 to 5 years), except in very dry years.



Soaker hoses save water! Cover them with mulch to save even more.

Moisten the whole root zone.

Watering deeply builds deeper, healthier root systems. To see if you are watering deep enough to moisten the whole root zone, dig in with a trowel an hour after watering to check the depth.

Make every drop count.

Some easy ways to lower water bills and get more water to plants include:

- Build your soil with compost and mulch to hold water and prevent evaporation.
- Choose low water use plants. Once established they can often thrive just on rainfall.
- Use soaker hoses or drip irrigation on beds – they save 50% or more compared with sprinklers!
- Use a timer that screws onto the faucet (available at garden stores) to water just the right amount.
- Water lawns separately from other plantings. Make sure sprinklers aren't watering the pavement too.

- When soil is dry or compacted it won't absorb water quickly. If water puddles, stop watering a while and then restart, so the water has time to soak in.
- Water in the early morning or evening – if you water at mid-day, half the water just evaporates.

Use automatic irrigation systems efficiently.

Automatic systems can actually waste lots of water, or be fairly efficient, depending on how you set and maintain them.

- Have a professional test, repair, and adjust your system annually.
- Inspect the system while operating once a month – look for leaks or heads that are plugged or misdirected.
- Install a rain shutoff device (ask your irrigation expert where to find them).
- Adjust the watering schedule at least once a month through the season – plants need a lot less water in May and September than they do in July and August.



Water in early morning or evening to reduce evaporation.

Let the rain soak in.

Winter rain rushes off roofs, pavement, and compacted soil. This causes flooding downstream, erodes stream banks, and muddies the water, which harms salmon and other wildlife. You can help slow this winter runoff, and help the soil hold the moisture plants need in summer.

- Direct downspouts out into lawns and beds, or "dry wells."
- Use compost and mulch to reduce erosion and help rain soak in.
- Use open pavers, gravel, or other pavement options that let rain through into the soil.
- Plant dense strips of native trees, shrubs, and groundcovers next to streams, lakes, and ditches to stabilize the soil, and to slow and filter runoff.



For more information: Where to buy soakers or drip lines? How to find an irrigation professional? Call the experts at the **Garden Hotline, 206-633-0224** e-mail help@gardenhotline.org or see resources on back cover.



4 Think twice before using pesticides



Scientists have found 23 pesticides (weed and bug killers) in our local streams, many at levels that may damage salmon and other wildlife. Overuse of these products can also damage soil and plant health. And studies find increased health risks among families that use lawn and garden pesticides, especially among pets and children. The good news is that we really don't need most of those chemicals.

Start with prevention.

- Build healthy soil with compost and mulch – soil organisms protect plants from many disease and insect pest problems.
- Select pest-resistant plants, and put them in the sun/shade and soil conditions they like.
- Clean up diseased plants, and compost dead plants in fall to reduce hiding places for insect pests.
- Pull weeds before they go to seed and spread.
- Use a variety of plants, so if pests attack one plant, others can fill its place.



Most bugs are good bugs.

Only about 5% of the bugs in your yard are pests. "Good bugs" like the ground beetle (above) and the green lacewing (below) help control pests.

Identify the problem before you spray, squash, or stomp.

The problem could really be incorrect mowing or pruning, improper watering, or other easily corrected practices. Or that scary bug could actually be a beneficial "good bug" that eats problem pests. Whether it's a bug, disease, or weed, you need to identify it to know how to effectively manage it.

Accept a little damage – give nature time to work.

Natural predators often bring pests under control, but they need time to work. Don't spray at the first sign of damage – nature may control it for you, or plants often just outgrow the damage.



If a pest or weed problem develops, use the least toxic solution.

- Physical controls like traps, barriers, fabric row covers, or repellants may work for pests.
- Long handled weed pullers pop dandelions out easily.
- Mulching once a year reduces weeds in beds.
- Less toxic products like soaps, horticultural oils, and plant-based insecticides that work for many problems are now available.
- Beneficial insects that prey on problem bugs are available for sale, or you can attract these “good bugs” by planting a variety of plants that provide pollen and nectar all year.



Long handled weed pullers pop dandelions out easily.

Use chemical pesticides as the last resort.

If you must use a chemical pesticide, use the least toxic product, and spot apply it – don't spread it all over the yard to kill a few weeds or bugs.

It may be best to have a professional who has all the protective gear do the application, but don't use services that spread chemicals over the whole yard or spray on a calendar schedule. You want to apply pesticides only when and where you really have a problem. Follow label instructions exactly – more is not better. And be sure to keep children and pets out of application areas.



Replace problem plants with pest- resistant ones for a healthier, easier to care for yard.

If a plant, even a tree, has insect pest or disease problems every year, it's time to replace it with a more tolerant variety or another type of plant that doesn't have these problems.



Roses are one example of plants we often use fungicides on to control disease. Ask your nursery for modern, pest and disease resistant varieties, to replace disease-prone plants.

Got a tough pest or weed problem? Help is only a call away.

Call the Garden Hotline at 206-633-0224 for free brochures, expert help in identifying “good bugs”, and solving your insect pest, weed, or plant disease problem. WSU Master Gardeners can also help. Call 206-296-3440.



5 Practice natural lawn care



It's easy to put all these steps to work in our lawns, where we often use the most pesticides, fertilizer, and water, produce the most waste, and work too hard!

Mow higher (1-2 inches), mow regularly, and leave the clippings.

"Grasscycling" or leaving the clippings on the lawn doesn't cause thatch build up. But it does make lawns healthier. Soil organisms recycle the clippings into free fertilizer, and you save all the work of bagging. Modern mulching lawn mowers make grasscycling even easier.

Use "natural organic" or "slow release" fertilizers.

Don't try for a deep blue-green color – healthy lawns in our region are a lighter meadow green.

- The best time to fertilize is September, when grass plants are building root reserves for the next year.
- If you want to fertilize in spring, wait until May, when grass growth slows.



*You can grasscycle with any mower. Push mowers (left) and conventional power mowers (right) leave clippings on the surface to break down. Electric and gas **mulching mowers** (center) blow chopped clippings down to the soil, leaving a clean lawn.*

Water deeply, to moisten the whole root zone, but less frequently.

Let the soil dry between waterings to prevent lawn disease and save water. Lawns only need about one inch of water a week in summer, including rain, to stay green. Or you can let areas of lawn that don't get heavy wear go brown and dormant – just water once a month, and they'll bounce back in the fall.

How much is one inch of water a week?

Scatter tuna cans or other straight-sided containers on your lawn, turn on the sprinkler, and check the time. When most cans have 1 inch of water in them, turn off the sprinkler and check how long it ran. Now you know how long to run your sprinkler each week in summer, if you want to keep your lawn green.



Improve poor lawns with aeration, overseeding, and top-dressing with compost.

- Aerate in spring or fall to improve root development and water penetration.
- Follow by overseeding thin areas with Northwest-adapted grass seed blends.
- Then “top-dress” by raking in 1/4 to 1/2 inch of compost to cover the seed and improve the soil.
- Repeat these steps annually as needed to improve poor lawns.



You can rent an aerator, or get a yard service to aerate for you.

Think twice before using “weed and feed” or other pesticides.

Accept a few weeds, and crowd out problem weeds by growing a dense healthy lawn. Use a long handled weed puller to easily remove dandelions without bending over. Weeding is easiest when the soil is moist. If you want to use weed killer, don't spread “weed and feed” all over (it gets into our streams) – just spot spray the problem weeds.



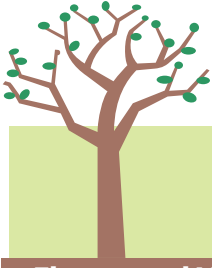
Honey, I shrunk the lawn!

Consider alternatives to lawns on steep slopes, shady areas, or near streams and lakes. Grass grows best on level, well-drained soil in full sun or part shade. And it takes a lot of work (and sometimes chemicals) to maintain. Look for other plants better suited to soggy soil, slopes, or heavy shade. Try to leave or plant a “buffer” of dense, native vegetation along streams and lakes. It will filter and slow runoff, shade and cool the water, provide homes for wildlife, and prevent bank erosion too.

For more information: What about moss, or craneflies? Where to buy organic fertilizer or mulching lawnmowers? Ask the experts at the **Garden Hotline, 206-633-0224** or see resources on back cover.



Natural Yard Care



Spring

March-May



Summer

June-August

Flower and Vegetable Gardens

- Prepare new planting beds and gardens by mixing in 1-3 inches of compost.
 - Pull weeds when they first start growing, while soil is moist and roots are short, before they go to seed.
 - Buy plants that resist disease and use less water.
 - Pest problems? Call the Garden Hotline, 206-633-0224, for advice.
- Mulch flower and vegetable beds with compost or grass clippings to conserve water and control weeds.
 - Use fabric row covers to keep pests off sensitive vegetables.
 - Identify bugs before you spray, squash, or stomp – they may be “good bugs” that eat pests.

Tree and Shrub Beds

- Prepare new tree and shrub beds by mixing compost into the entire bed (not just planting holes). Or plant trees in native soil and mulch well.
- Mulch shrub and tree beds with wood chips, leaves, or bark once a year to conserve water, reduce weeds, and feed the soil.

Lawns

- Start mowing, about 2 inches high for most lawns, or 1 inch for bentgrass lawns. “Grasscycle” – leave the clippings for free fertilizer.
 - For lawns in poor condition: aerate, overseed, and top-dress with 1/2 inch of compost.
 - Fertilize lawns if needed in May with “natural organic” or “slow release” fertilizer.
- Mow regularly, and leave the clippings on the lawn.
 - Keep mower blades sharp to reduce lawn damage and brown tips.
 - Consider saving water by letting some lawn areas (ones that don’t get heavy traffic) go brown and dormant until fall.

Watering

- Prepare sprinkler systems by testing, adjusting, and repairing leaks.
 - Lay out soaker hoses in beds, and cover with mulch.
 - Check soil moisture at plant roots before watering – don’t water until they need it.
- Start and re-check watering systems, and adjust for weather. (Don’t water when it rains.)
 - Water lawns 1 inch per week, or let go brown and dormant (but water enough to moisten root zone once a month).
 - Water at dawn or in evening to reduce evaporation.

Composting

- Harvest compost from your bin. Throw any uncomposted sticks or stalks back in for another cycle.
- Add yard debris to compost pile; water pile to keep it moist. Place pile in shade or cover to hold moisture.

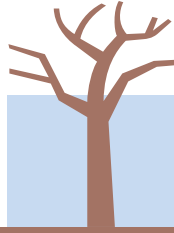
Through the Seasons



Fall

September-November

- Pull emerging weeds in beds when ground is moist and before they develop deep roots.
- Mulch garden beds with leaves or compost to reduce winter weeds and feed the soil. Or plant winter cover crops in open beds.
- Prepare new planting areas by digging in compost.



Winter

December-February

- Rake winter leaf mulch back onto beds if winds blow it off.
- Weed beds once during winter to prevent weeds going to seed.

- Mulch tree and shrub beds with leaves, wood chips, or bark.
- Plant trees, shrubs, and many perennials in early fall to give them a good start.

- Prune fruit trees and other woody trees and shrubs while they're dormant (December-February).

- Improve thin areas of lawns in September – October by aerating, overseeding, and top-dressing with compost.
- Fertilize lawns with “natural organic” or “slow release” fertilizer in September to develop healthy roots and crowd out weeds.
- Plant new lawns September 1 – October 15, to give them the best start before next summer.

- Reduce watering for cooler weather in September.
- When rains come, shut off and drain watering systems.
- Put away exposed soaker hoses, or re-cover with mulch if left out.

- Clear out annual garden growth and compost it for spring. Keep pile as moist as a wrung-out sponge.

Winter is the time to plan for spring.

- Tune up yard equipment; sharpen mower blades.
- Plan drip irrigation or soaker hoses for beds and containers to conserve water.
- Check storage areas for unwanted chemicals, and dispose safely. Call the Hazards Line at 206-296-4692 for disposal information.
- Plan to replace plants that have disease or pest problems.
- Call the **Garden Hotline, 206-633-0224**, to ask questions and request free brochures to start planning for spring. Or read more at the web sites on the next page.



Want to know more?

Questions?

Call the **Garden Hotline** at **206-633-0224**, or email help@gardenhotline.org.

Resources

- Soil and composting (*King County*)
www.kingcounty.gov/soils
- Yard and garden topics (*King County*)
www.kingcounty.gov/natural-yard
- Natural lawn & garden care (*City of Seattle*)
www.seattle.gov/util/services/yard
- Water conservation, indoors and outdoors
(*Saving Water Partnership*) www.savingwater.org
- Washington State University
Master Gardener information 206-296-3440
<http://gardening.wsu.edu>
- Less toxic gardening and pest control
(*Local Hazardous Waste Management Program*)
www.govlink.org/hazwaste/house
- Choosing the right plant for the right place
(*photos*) www.GreatPlantPicks.org
- Native plant information
www.kingcounty.gov/gonative

Free brochures

Available through the Garden Hotline or on web sites to left include:

Natural Lawn & Garden Guides

- *Growing Healthy Soil*
- *Choosing the Right Plants*
- *Smart Watering*
- *Natural Pest, Weed & Disease Control*
- *Composting at Home*
- *Natural Lawn Care*

Other publications

- *How to Choose a Landscape Company*
- *How to be a Salmon Friendly Gardener*
- *Four Reasons to Kick the Weed and Feed Habit*
- *Natural Yard Care Buyer's Guide*
- *Worm Bins – How to Compost*

When it comes to your yard, act naturally!



Waterwise Garden at the Bellevue Botanical Garden.

Alternate Formats On Request

206-296-4466 | TTY Relay: 711 | 1-800-325-6165, ext. 6-4466



Printed on 50% recycled paper KCSWDRES-10-08



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Department of
Natural Resources and Parks

Solid Waste Division

206-296-4466

TTY Relay: 711



City of Seattle

Seattle Public Utilities

206-663-0224

TTY: 206-233-7241



Saving Water Partnership

A service of your local water utility

206-684-SAVE