

Plan Before You Plant

A How To Guide to Common Sense Gardening

What is Common Sense Gardening?

Common Sense Gardening is a way to create and maintain lawns and gardens with community and personal health in mind. Common Sense Gardeners focus on preventing pests and weeds by creating vibrant landscapes that are rich in organic matter and able to tolerate normal stresses.

When problems with weeds and pests come up, Common Sense Gardeners follow an Integrated Pest Management approach. Integrated Pest Management (IPM) uses physical, mechanical, cultural, and biological controls to keep pest and weed numbers low enough to prevent long-term damage to plants or the landscape. Chemical controls are used only as a last resort, carefully following label instructions.

Why does it matter what I do in my lawn and garden?

The first reason to be concerned about what is used on local yards is the health and safety of our drinking water. Thurston County residents depend on groundwater for nearly all of our drinking water. Anything put onto the ground can get into our groundwater and contaminate drinking water wells. Common Sense Gardening protects our drinking water because fewer lawn and garden chemicals enter our water supply.

Our lawn and gardening practices can also affect the health of local lakes, rivers, and Puget Sound. Stormwater runoff comes from the rain that falls on lawns, rooftops, sidewalks, parking lots, and other hard surfaces. Stormwater carries fertilizers and hazardous weed and bug killers from our yards into our surface water. This untreated water flows to the nearest creek, into rivers, and in much of Thurston County, to Puget Sound. Common Sense Gardening helps



protect rivers, lakes and Puget Sound!

Common Sense Gardening can also protect our families' and community's health as fewer hazardous products are used where our children and pets play. Studies by the US Centers for Disease Control and Prevention find commonly used pesticides in the blood or urine of most study participants. "Many of the health problems linked to pesticide use are serious and difficult to treat, so we are advocating reducing exposure to pesticides and preventing harm as the best approach." From the *Ontario College of Family Physicians*. Common Sense Gardening is better for kids, pets, and all of us!

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THURSTON COUNTY
WASHINGTON

SINCE 1852

Thurston County
Environmental Health Division
412 Lilly Rd. NE
Olympia, WA 98506



Step 1: Prevent problems with good care

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Build Healthy Soil for Healthy Plants

Organic matter, such as compost and manure acts like a sponge, holding water and nutrients in reserve until plants need it. Add 6-12 inches of compost or composted manure (composted manure smells like sweet dirt and should not have a strong odor) to new garden beds. For lawns, add 1/4 inch of well-screened compost evenly across the yard and make sure that the grass is poking through.

Plants thriving in their ideal location with soil rich in organic matter are less susceptible to pests. Plants prefer loose soil for healthy root growth but are often placed in compacted soils after a home is built.

Cover the Ground

Fill empty spaces with plants or mulch. Bare soil will fill in with plants; you can either plant the ones that you prefer or spend time weeding those that volunteer!

Mulches are materials that cover the ground and help keep weeds

from competing with desirable plants. Mulches can include: leaves, straw, grass clippings, wood chips or bark. Mulch also holds moisture and provides habitat for beneficial insects. Cover bare soil with at least 3-4 inches of mulch, keeping it away from the crowns and woody stems of plants and trees. The goal is to surround the plant, not bury it.

Healthy, low-maintenance yards take a cue from natural landscapes, with many layers such as tall trees, thick shrubs and dense groundcovers. Even if you don't want a native woodland in your backyard, you can mimic some of these ideas with close plant spacing, layers of plants, and mulch.

Right Plant, Right Place

Many of us see an attractive plant, purchase it, water and admire it, only to have it slowly lose its vigor. If your soils have been amended, look at the location of the plant for possible problems. Plants need the right conditions where they can best thrive - a little research can help determine the plants that are right for the conditions in your yard.

Before you buy, figure out the **growing conditions** in the area you want to plant. Questions to ask

include: Is there full sun or mostly shade? What direction does the area face? North and east facing areas usually have more shade and cooler air temperatures and will offer opportunities for shade loving plants. Areas facing south and west usually receive the hot afternoon sun and plants that require sun and heat will do better in those areas.

What is the **drainage** like in the area you are planting? An easy way to check soil drainage is to dig a small hole eight inches deep and fill it with water. If the water drains quickly, soil is either gravelly or sandy. Soil that drains within a few hours is considered well-drained. If the hole has standing water the next day, your soil is compacted and slow-draining. Once you know the type of soil that you are working with, choose plants accordingly. For example, some plants are tolerant of "wet feet" or prolonged dampness while others can only thrive in well-drained soils.

What else is already growing in the area you are planting and how much **water** do those plants need? If it is a new planting area, how much do you want to water? Group plants with similar light and watering needs together. One strategy is to plant the plants that need the most care near doors and walkways, where they are more likely to be noticed. Place plants that will do well with less water in the areas where you will naturally pay less attention such as along borders or the further reaches of your yard.

Think about the **surroundings** and the height and width of mature plants. How close to a building, path, or sidewalk is the area? Are there power lines overhead? Is there a septic drainfield to consider? Are there views you want to highlight or screen?

Ask a trusted nursery person to help you figure out the best plants for the conditions in your yard or see the following **resources**: Common Sense Gardening Plant List, Great Plant Picks, and Thurston County Master Gardeners. (see *resource list*)

There are many insect and disease-resistant **varieties** of plants available such as roses resistant to fungus, rhododendrons resistant to root weevils and disease-resistant fruit trees. Choose varieties that are less susceptible to pests and avoid varieties that struggle in the Pacific Northwest. Native plants can also be a great way to create a thriving landscape that does not need extra water and fertilizers after plants are established. Native plants have adapted to the natural conditions of our region and when planted in the right spots, are resistant to pests and disease.

Encourage Birds and Beneficial Insects

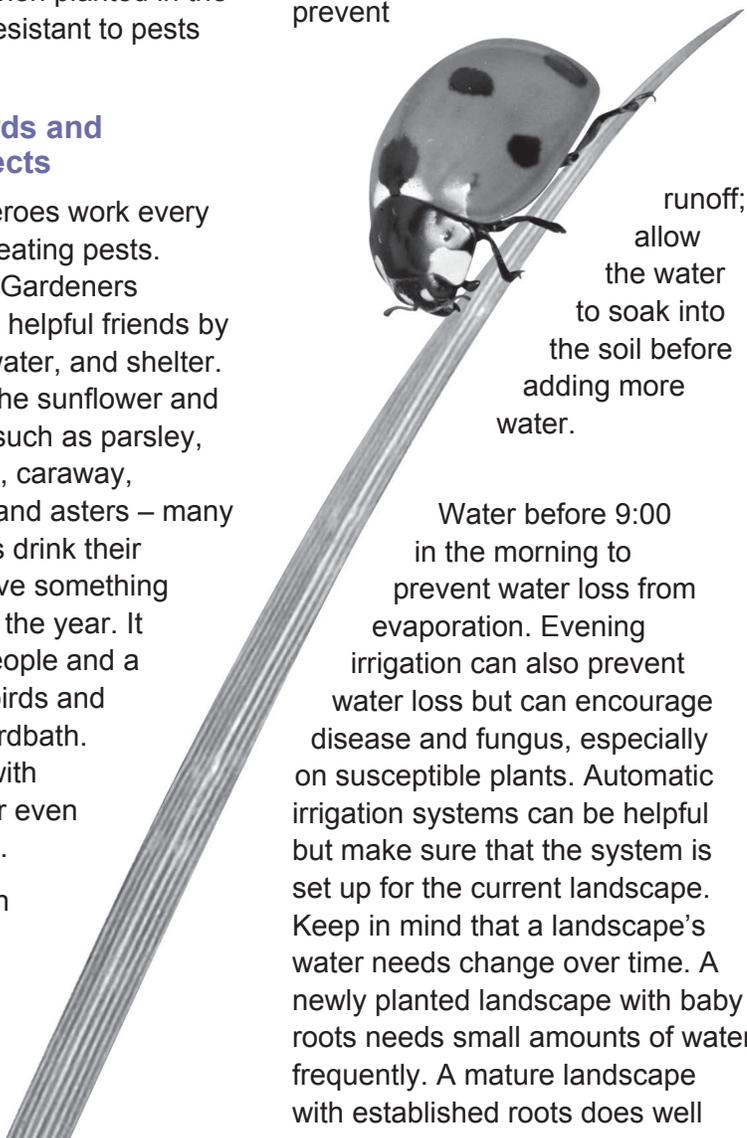
These garden heroes work every day, year-round eating pests. Common Sense Gardeners encourage these helpful friends by providing food, water, and shelter. Plant flowers in the sunflower and parsley families such as parsley, sunflower, zinnia, caraway, yarrow, daisies, and asters – many beneficial insects drink their nectar. Try to have something in bloom most of the year. It is attractive to people and a food source for birds and insects. Add a birdbath. Provide shelter with mulch, shrubs, or even a small wild area.

One concern with insecticide use is that they kill beneficial insects as well as pests.

After an application, another pest can suddenly become a problem because its natural enemies were killed. This is known as a secondary pest outbreak and may be a bigger problem than the original pest.

Use Precious Water Wisely

Deep, infrequent watering encourages plants to develop healthy root systems and creates stronger plants. Water only the areas that need it to prevent unwanted plants, and avoid watering sidewalks and driveways. If water is running off the yard, or onto unplanted areas, check to see whether the soil is actually saturated or if it is so dry that it hasn't absorbed any water. It may be necessary to water in cycles to prevent



runoff; allow the water to soak into the soil before adding more water.

Water before 9:00 in the morning to prevent water loss from evaporation. Evening irrigation can also prevent water loss but can encourage disease and fungus, especially on susceptible plants. Automatic irrigation systems can be helpful but make sure that the system is set up for the current landscape. Keep in mind that a landscape's water needs change over time. A newly planted landscape with baby roots needs small amounts of water frequently. A mature landscape with established roots does well

with deep and infrequent watering. Automatic lawn irrigation is often designed for a new lawn and as the lawn grows in, water needs change. Check your automatic system to make sure you are conserving precious water while efficiently meeting the needs of your current landscape.

Consider drip irrigation. Drip irrigation is the most efficient way to use water because it carries water directly to the plant. Since it doesn't water the area around the plant such as in paths or between plants, it helps prevent weed seeds from sprouting. It also reduces water loss from evaporation.

Step 2: Visit your yard

The best way to prevent problems in your yard is to spend as much time, as often as possible, observing your plants and the health of the landscape. When you spend time in the garden, simply paying attention, you will notice many important things such as how plants are recovering from a hot summer or a long winter, the color of new growth, signs of fungus, and if birds are eating your berries. These simple observations allow you to deal with problems at the earliest stages, before there is an infestation.

Remember that a pest-free landscape isn't practical or even desirable. There is an entire ecosystem within even the smallest yard, and at best, gardeners can help guide and manage it. Healthy landscapes are teeming with life including bugs and plants. Common Sense Gardeners are realistic about the garden of their dreams and what their personal time and resources will allow.

Step 3: Identify the problem

Studies suggest that 70 percent of all landscape problems are because of weak, stressed plants. Common causes of plant problems include: weather stresses such as frost damage or drought, poor soil, over-fertilization, plants placed in areas where they are not well-suited and too much or too little water. Start with these issues when trying to determine why a plant is not thriving. If damage is noticed, investigate! What does the damage look like: brown spots, chew marks on leaves, discolored, curling leaves? Where on the plant is the damage located: leaves, flowers, fruit or bark? Are only certain plants affected? Answers to these questions can help determine the problem. If a pest is seen, identify it for the best chance of control. Once you know what type of problem you are dealing with, control options are easier to identify. Master Gardener Clinics can help identify pests or weeds.

Step 4: Decide When to Act

Insects and diseases do not follow a calendar, so routine pesticide applications without identifying the problem are a waste of time and money. Keep in mind that unless more than 30% of the leaves, fruit, or flowers are damaged, plant health may not be harmed and controls may not even be needed. Remember that eco-system in your yard? If less than 30% of the plant is affected, be patient, provide good plant care, and see if the plant outgrows the problem. You may make different decisions for areas of your yard where children play, where a prized plant is viewed from the window, or for the shrub border. Even golf courses treat weeds differently in the greens, fairways, and in the rough.

Step 5: Choose Effective Control Strategies

Type of control	Examples	Effective when
Cultural controls	Mulch • close plant spacing • proper watering and fertilizing • tilling • resistant varieties of plants	Planning your landscape , used as regular maintenance, before problems get out-of-hand
Physical/mechanical controls	Long-handled weed tools • pest traps • water spray • copper tape • weed torch	Problems are first noticed , gardener is prepared to work to control the problem
Biological controls	Beneficial insects such as lacewings or parasitic wasps • <i>Bacillus thuringiensis</i> (Bt)	Gardener needs more help and can identify pest problem

Chemical controls

Are you sure that you need **chemical controls**? Even less-toxic pesticides can have side effects - that's why they are way down here, after you've tried everything else, *first*. **Grow Smart, Grow Safe** is an excellent resource that lists weed, pest, and disease controls from least-toxic to those that pose the greatest risks. Find it at www.GrowSmartGrowSafe.org – or request a copy from Thurston County Environmental Health. When selecting chemical controls, choose the least-toxic methods first and give them a chance to work. Always follow the product label directions exactly when using any type of chemical control method. This includes protective gear that is suggested, length of time before interacting with plants after application, etc.

Before deciding on any control strategy, figure out how it will fit into your overall maintenance plan. Yard maintenance is rarely as easy as using one product to take care of the many challenges that all gardeners inherit. Working with nature is part of the fun!

For more information on Common Sense Gardening, contact Thurston County Environmental Health at 360-867-2674 (TDD 360-867-2603). Common Sense Gardening guides are also available free at local nurseries or online at: www.co.thurston.wa.us/health/ehcsg/

More Resources:

Great Plant Picks www.greatplantpicks.org

Native Plant Salvage Project
(360) 867-2166 www.nativeplantsalvage.org

Seattle Tilth www.seattletilth.org

Thurston County Noxious Weed Program
www.co.thurston.wa.us/health/ehipm/homeownr_prescrp.html

WSU Extension Thurston County Master Gardeners
(360) 867-2163 <http://county.wsu.edu/Thurston/gardening/general>

Washington State Native Plant Society www.wnps.org

Properly dispose of unwanted pesticides at **HazoHouse** at the Thurston County Waste and Recovery Center, 2418 Hogum Bay Road, Lacey. Open Fri., Sat., Sun., and Mon., 8 am to 5 pm. Call the WasteLine, 360-786-5494, for more information.