Weeds annoy us by thriving where they’re not wanted. It may seem that two pop up for every one we pull. But there are many effective ways to tackle weeds without resorting to toxic chemicals. Learn to outsmart weeds the safe way, without herbicides. You’ll be helping to protect the health of our soil, water, wildlife, pets, and families.

Step 1: Prevention – The Best Management

Use plants to fight weeds
- Plant fast-growing annuals in new shrub beds to fill in the space between slow-growing shrubs. Examples: sweet alyssum (Lobularia maritima), farewell to spring (Clarkia amoena), and scarlet flax (Linum grandiflorum).
- Space plants closely to crowd out weeds.
- In vegetable gardens, plant a cover crop such as crimson clover or winter rye in the fall. In early spring, dig the plants into the soil.

Limit sources of weeds
- Keep weed seeds out of your garden by choosing seeds, soil, and mulch from reliable sources. Make sure manure has been “hot composted” to kill weed seeds.
- Before introducing a plant to your garden, ask if it is a type that spreads and takes over. Inspect nursery plants to make sure they don’t contain weeds.
- Learn your plants’ fertilizer needs. Over-fertilizing encourages weeds.
- Limit how much you work the soil. Every time soil is turned over, weed seeds are brought near the surface where they can sprout. If you do turn your soil, apply mulch immediately to smother weed seeds. Or, wait about four days and hoe shallowly (1/2 inch) to kill sprouting weeds.

Mulch, mulch, mulch
Mulch is any protective substance that covers the soil. Mulch smothers weed seeds by limiting light. Place mulch between plants and over unused plots. Mulch four inches deep in garden beds. Use two inches around shallow-rooted plants such as rhododendrons and azaleas. To further cut off weeds, use a base layer under the mulch.

- Base layer – includes cardboard, newspaper (thick and overlapped), and landscape fabric. Take care using landscape fabric because many kinds do not break down and become tangled with roots. Perennials such as thistles may still pop up through these layers, so also plan to hand weed.
- Mulch – includes sawdust (alder works well), wood chips, shredded bark, shredded yard prunings, pine needles, and old cedar shavings (which are naturally weed-repellent).

Watch where you water
Install soaker hoses or drip irrigation, so plants are watered, not paths or weeds! Bury soaker hoses three inches deep in soil or mulch to reach plant roots.

Step 2: Assess the Weed

Know your weed to plan an effective control strategy. Is it an annual, which dies down each year and only spreads by seeds (such as chickweed)? Is it a biennial, completing its life cycle in two growing seasons (such as mullein)? Is it a perennial that grows for many years, and reproduces mainly by seeds but also stores food in its roots (such as dandelions)? Or a perennial that spreads by seeds and creeping (such as buttercup or blackberry)?

For weed identification, contact WSU Extension’s Master Gardeners at 360-867-2163, Monday through Friday, 9 am to 1 pm or Noxious Weed Control at 9605 Tilley Rd SW, call 360-786-5576, or visit www.co.thurston.wa.us/tcweeds.
Step 3: Assess the Site

Why are weeds present? Weeds generally grow where the soil is disturbed or where desired plants are growing poorly. Find plants suited to the amount of sunshine, type of soil, and amount of care you are prepared to give. Get the Common Sense Gardening Plant List and Plan Before You Plant (see “For More Information” below).

Weeding Tips:
- It’s easier to pull up weeds in damp soil.
- Weed forks make it easier to pull weeds with long tap roots, such as dandelions and Canada thistles (a screwdriver also works).
- To save your back, try one of the long-handled, weed pullers with foot pedals or hand triggers.
- In lawns, sprinkle grass seeds in the holes left by removing weeds and cover with 1/2” of soil.
- Dig or cut perennial weeds just before they bloom, when their food reserves – and ability to regrow – are lowest.

Weed Disposal:
Do not compost weeds that have gone to seed or those that regrow from stems, such as English ivy and morning glory. You can dispose of select “noxious weeds” free at the Thurston County Waste and Recovery Center; contact Noxious Weed Control for details (see front).

Step 4: Assess Your Options

Hand pulling and hoeing:
Hand pulling is very effective for annual weeds before they set seed. It is not as effective for weeds that regrow from root fragments. Use hoes to chop and scrape out seedling weeds, exposing roots to the drying action of the sun.

Mowing:
Repeated mowing of perennials, such as Canada thistle, depletes the food reserves stored in plants’ roots. It takes persistence – as in mowing every few weeks during the growing season for at least three years! Mow lawns at least 2 inches high so grass will shade out weeds.

Heat:
Heat kills weeds. Boiling water from a teakettle can be poured on weeds popping through cracks in the driveway or patio. Propane torches are used to flame tough weeds. Technique is important, as it’s the heat, not actual burning, that kills the plant. Check nurseries, hardware stores, or catalogs for flame weeder.

Chemical controls:
The use of herbicides in home gardens is usually unnecessary. Stormwater washes toxic chemicals down storm drains into streams, lakes, ponds, Puget Sound, and ground water (our source of drinking water). As a last resort, spot applications of herbicides are safer for the environment than broadcast applications.

The warning labels on weed and bug killers carry legal definitions:
- “caution” = moderately toxic
- “warning” = very toxic
- “danger” = extremely toxic

Always read and carefully follow label directions. Visit our website for a list of less-toxic products and weed-specific strategies (see Homeowner Prescriptions at Integrated Pest Management, IPM for Homeowners and Land Managers).

Thurston County does not use herbicides on roadsides, parks, or other county lands unless the Health Officer has approved their specific use. County policy does not recommend any herbicide for many types of tough weeds on county property – this includes morning glory, horsetail, nettles, and poison oak.

Avoid “weed & feed” products: These usually are a mix of herbicide and quick-release fertilizer. Professional landscapers avoid these products because most of the herbicide is wasted. In addition, these chemicals may damage the health of your landscape, wash into local streams and ground water, and get tracked inside.

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/.

Prepared by Thurston County, its cities, and the Washington State Department of Ecology.

Updated March 2010

To receive this guide in an alternative format, please call 360-867-2674 (TDD 360-867-2603)

Printed on recycled paper