



Urban Weed Management

1. **Prevention is key!** Take simple steps to prevent weeds from being introduced on your property.
 - a. **Know your enemy.** Learn to identify problem weeds and recognize plants which are growing aggressively or spreading into undesirable areas.
 - i. **Take a weed identification class** and learn about the worst invaders! A list of classes in the metro area is available for attendees.
 - b. **Don't introduce invasive plants.**
 - i. **Many common weeds originally came from nurseries.** If in doubt, ask your nursery if a plant is aggressive or spreads **before** you buy.
 - ii. **Do not order plants from the internet.** There is inadequate regulation of the online distribution of invasive species. If you buy locally, your nursery is likely to know how a plant grows in this area.
 - iii. **Don't trade plants with other gardeners,** especially if the plant has spread aggressively in their yard.
 - iv. **Watch new plants for invasive tendencies,** and control them early if they spread.
 - v. **Check out the GardenSmart guide.** Guides have information about common weedy plants, and native and horticultural alternatives.
 - vi. **Clean tools, boots, and pets, and.** Invasive plant seeds can come from contaminated birdseed, wildflower seed mixes, hay, dirty boots, clothes, pets, tools, tires, and contaminated soil.
 - vii. **Don't leave bare or disturbed soil.** Weed seeds germinate on bare soils. Plant or mulch bare areas to prevent new infestations.
2. **Manage Invasive plants early!** Different management strategies are required for different plants, infestation sizes, and locations.
 - a. **There are 3 main plant types.**
 - i. **Annual plants reproduce solely by seed;** they germinate, flower, and die in one season. Dead-head (remove flowering heads and seeds), solarize (lay down a thick black tarp to "bake" the seeds/roots over summer) or hand pull plants in this category prior to seed formation. (examples: shinning geranium and pigweed)
 - ii. **Biennial plants germinate one year and flower the next before dying.** Control these plants when in seedling phase or after bolting(starting to flower) but prior to seeding. Make sure you pull at the bottom of the plant with care to get the root! (examples: garlic mustard and herb Robert)

- iii. **Perennial plants grow each year.** Some die back in the winter, only to resprout in the spring, while others stay active all winter long. Most perennials reproduce both by seed and vegetative parts. A control strategy for these might include preventing seed formation and digging up roots. (examples: ivy, clematis)
 - b. **Infestation sizes will help determine control methods**
 - i. **Small infestations can usually be hand-pulled or dug.** Pull plants when the soil is moist to remove the entire root.
 - ii. **Larger infestations may require mulching, solarization, or mechanical techniques such as mowing** (not effective for all weeds). Be sure to use a method which is effective for your specific weed species.
 - iii. **Very large or tough infestations may require herbicide applications.** Please contact your local Soil & Water Conservation District or weed district if you are considering using herbicides on your landscape.
 - c. **The location of the infestation will also determine control methods**
 - i. **Infestations and control practices on slopes or unstable ground may increase erosion and soil movement.** To prevent soil movement, you may need to use soil conservation tactics when controlling weeds.
 - ii. **Infestations and control practices near water may cause water quality problems.** Eroding soil, chemical pollution, and movement of invasive plant propagules are all concerns when working near open water.
- 3. General Guidelines for Urban Weed Control**
- a. **Prevention**
 - i. **Keep lawns well seeded and healthy** –A healthy lawn will prevent germination of weed seeds. Don't mow too low as it reduces grass vigor and opens bare areas to light, allowing weed seeds to germinate.
 - ii. **Use garden mulch as a moisture retention and weed prevention tool.** Use weed free compost/mulch and remove weeds early.
 - b. **Control**
 - i. **Hand weeding is the first line of defense for most home gardeners.** It is an effective way to prevent infestations, but is labor intensive and must be done regularly.
 - ii. **Weed wrenches and other tools** are surprisingly powerful and can enable you to control large saplings and shrubs that are too big to be pulled by hand. It is not as effective against rhizomatous weeds with spreading underground stems and roots that are often left behind to re-sprout.
 - iii. **Mulching is using bark mulch, compost, or other products to smother infestations and prevent germination.** It is most effective on annual weeds and mulch layers may need to be quite thick (3 or more inches) to prevent seed germination. Perennial weeds will grow through mulch.
 - iv. **Lasagna mulch** is when you spread cardboard over an infestation, and cover that with a bark mulch or compost. It is a more effective form of mulch for

perennial weeds and when there are no desired plants mixed in with the infestation.

- v. **Mowing and cutting can reduce seed production and restrict weed growth, especially in annuals cut before they flower and set seed.** Some species however, re-sprout vigorously when cut, replacing one or a few stems with many that can quickly flower and set seed.
- vi. **Girdling is sometimes used to control trees or shrubs that have a single trunk.** It involves cutting away a strip of bark several centimeters wide all the way around the trunk. A dead standing tree (snag) can provide valuable wildlife habitat and allows the nutrients of the tree to be returned to the system, but it can also be unsightly and a hazard not suitable for high traffic areas. A few species, notably black locust (*Robinia pseudoacacia*) and tree of heaven (*Ailanthus altissima*) should not be girdled because they respond by producing many fast growing root and stem sprouts.
- vii. **Tilling, or turning over the soil, is effective against annuals and shallow-rooted perennials,** but it can spread perennials with rhizomes.
- viii. **Soil solarization is the technique of placing a cover (usually black plastic) over the soil surface to trap solar radiation and cause an increase in soil temperatures to levels that kill plants and seeds.** It can be very effective for shallowly-rooted plants in areas of full sun, and with enough time. Solarization may not work for plants with deep roots or in shady areas.
- ix. **An integrated approach to plant control, called *Integrated Pest Management (IPM)*, is most economical and effective means of controlling weeds.** IPM may utilize manual, mechanical, chemical and biological control methods as part of a well thought-out plan.
 1. **Utilize a combination of manual and mechanical methods** to tackle some aggressive perennial weeds. Example: mow blackberries in the late summer (after the ground nesting season July 31st) and dig up the root wads in the fall after the rains saturate the soil.
 2. Some invasive plants, such as Scotch broom, have **biological control agents.** These bugs, diseases, and parasites were usually introduced to attack specific plants. To learn more about biocontrols for various weeds, visit the ODA website:
<http://www.oregon.gov/oda/programs/weeds/pages/biologicalcontrol.aspx>
 3. **Herbicides are a tool which should be carefully researched prior to application.** The health and safety of applicators, wildlife, desirable plants and others in the vicinity must be considered. If you do opt to utilize herbicides, please contact a licensed applicator to apply the chemicals or your local extension or SWCD office for further guidance.