



GOOD OAK
ecological services

www.goodoak.com • Madison, WI

Controlling Weeds and Invasive Plants

Methods of Weed Control

Pulling: Get a good grip at ground level, works best on tap-rooted species in wet or loose soils.

Digging: A good sharp shovel, hori hori, or soil knife is the best tool. For tap-rooted species attempt to sever the root several inches below the soil surface.

Grubbing: Dig up entire area, sift through soil to remove roots. Usually need to be repeated as root fragments resprout.

Smothering: You can use a tarp and something to weight it down. We prefer to use cardboard, 10 layers of newspaper or commercial smothering paper covered by 4-6 inches of mulch. This leaves you with a bed ready to plant in 4 weeks to 1 year. Otherwise a tarp or black plastic sheets can be used and then removed.

Mowing: Most effective on annual or biennial weeds, typically should be timed for early in their blooming period. Repeated treatments are typically needed.

Flame Weeding: Top kills the weeds only so repeated treatments are usually needed, but a single treatment can be effective on seedlings. Great for clearing weeds out of patios, walkways, etc.

Prescribed Burning: Our most efficient tool for managing natural areas, but timing and repetition of burns must be carefully considered for effective weed management.

Herbicide Application:

- Wear long sleeves, long pants, waterproof boots, eye protection & nitril or rubber gloves.
- Disposable gloves are worthwhile to prevent herbicide spread.
- 'Tongs of death' or 'gloves of death' can be used for very targeted application.
- Read product labels carefully for application information
- we recommend avoiding herbicides containing 2,4-D
- Phydura and Nature's Avenger are two *organic herbicides* that can top-kill weeds.

Typical Control Methods for Weed Types:

Woody Plants:

- Cut them down and treat the stump with concentrated herbicide: glyphosate (Round-Up®, etc.) at 20% active ingredient or triclopyr (Garlon® 4, etc.) at 12% A.I.
- Cut down then snip resprouts every few weeks for a year or more.
- Cut down and cover stump with a bucket or Buckthorn Baggie.
- Girdle physically with saw or hand tools, or chemically with triclopyr, leave dead tree standing to be cut later or left for wildlife habitat.

Perennials: Dig out the roots, rubbing for rhizomatous species. But deep rooted species will need to be herbicide or cut/mowed *very* frequently.

Invasive Ornamental Plants: Many ground covers in particular are very invasive, eliminate them, or *at very least* keep them contained by a permanent, impenetrable boarder. Do *not* share with friends! To kill them, treatment is same as other perennial weeds.

Biennials and Short-lived Perennials: Remember they will die after flowering. Your main goal should be to prevent seed production, and you have two years to kill them before they flower and set seed. Control methods vary by species, but mowing just as they begin to flower is a good last-ditch effort.

Annuals: Least threat in the long term but common problem on disturbed ground. Pull, mow or flame-weed. Repeated treatments maybe necessary if they are well established. Herbicide isn't necessary.

Recommended Books:

- *Invasive Plants of the Upper Midwest* by Elizabeth Czarapata
- *Wild Urban Plants of the Northeast* by Peter Del Tredici
- *Kane County Wild Plants and Natural Areas* by Dick Young
- *Wildflowers of Wisconsin* by Black and Judziewicz
- *A Field Guide to Terrestrial Invasive Plants in Wisconsin* by Wisconsin DNR
- *Weeds of the Northern US and Canada* by Rance Royer & Richard Dickinson

Recommended Websites:

Good Oak Ecological Services:

<http://www.goodoak.com/weeds/>

Wisconsin DNR's Invasive Plants Page:

<http://dnr.wi.gov/topic/Invasives/>

National Park Service's Weeds Gone Wild Site:

<http://www.nps.gov/plants/alien/index.hTm>

Cornell's Weed Ecology & Management Laboratory: Organic Weed Management:

<https://weedecology.css.cornell.edu/manage/>

The Invasive Plant Association of Wisconsin:

www.ipaw.org

John Hilty's Illinois Wildflowers Site:

<http://www.illinoiswildflowers.info/>

WiscFlora:

<http://www.botany.wisc.edu/herb/search.html>

