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## **Now's the Time to Plan an Herbicide-Free Attack on Landscape Weeds**

Kathy Connolly

When the topic is land care, there's a certain conversation that gets emotional. It begins like this: "What should we do about those weeds? We have never used herbicides, but..." The speaker then describes a leafy horde that's poised to take over the property and ruin the summer. The larger the property, the more emotional this discussion becomes.

There are no weed-free landscapes, but luckily there are good alternatives to herbicides for some weeds. Now's the time to plan.

Consider, for instance, the wooded edge that has bittersweet vines, thorny brambles, and herbaceous weeds. Mow or clip the area as low to the ground as possible during April and May. Cover the area with an eight-inch layer (or more) of raw wood chips—tree care companies usually have plenty of raw wood chips and will often deliver them for free or a minimal charge. The chips fight weeds in two ways.

At a depth of about eight inches, raw wood chips effectively shade and smother weedy undergrowth for about two years. They also rob nitrogen from the upper inch of soil, which denies nitrogen to newly germinated weed seedlings. (What a shame!) There's one caution to keep in mind with this technique: Cardboard and chips should be kept at least six inches from the trunks of desirable trees and shrubs.

Well-known extension horticulturist Dr. Linda Chalker-Scott has written a lot on this topic and offers links to research at [puyallup.wsu.edu](http://puyallup.wsu.edu).

Are you dealing with one of our worst invaders, knotweed (*Polygonum cuspidatum*)? It, too, succumbs to patient mechanical treatment. Just ask Petie Reed, owner of Perennial Harmony Garden and Landscape in East Lyme ([www.perennialharmony.com](http://www.perennialharmony.com)). She conducted a controlled experiment at the Pine Grove Spiritual Camp in Niantic together with Abby Stokes, a community resident, beginning in 2013.

"We started with a heavily infested test area of 100' x 40' area on the river bank. We hand-cut and bagged the weeds as soon as they showed a leaf in April," she says.

They cut and bagged again in June, July, and August. Though it might be tempting to use a weed whacker, these tools chop the stems into multiple pieces.

"This weed is so vigorous it can resprout from bits as small as one inch," says Reed.

She also recommends against pulling the roots, as the plant regrows from root parts left in the ground.

"Our strategy is to deprive the plant of leaves and stems. Then it can't use sunlight to make food," Reed says.

As anyone who has battled knotweed knows, one year is not enough—"but we did see the knotweed weakening by the end of the first year," she adds.

Reed feels the August cutting is most important.

"When the weeds can't photosynthesize at the end of the growing season, they can't restore food stores in the roots. This leaves them fundamentally weakened."

She and Stokes continued the regimen during 2014 and 2015. In spring 2016, knotweed was nowhere to be seen. Native sedges, asters, and black-eyed Susans have returned. They've now expanded the cutting area from 100 feet to about one-half mile of riverfront.

Perhaps you're fighting herbaceous weeds such as garlic mustard (*Alliaria petiolata*), a biennial plant that loves to haunt the edges of driveways and woodlands, or stiltgrass (*Microstegium vimineum*), which can take over an area in a flash.

Weed scientist Todd Mervosh, Ph.D. at TM Agricultural & Ecological Services in Suffield, recommends hand-pulling garlic mustard in early spring just as it begins to flower.

"It is a biennial plant that spreads a lot of seeds in late spring and summer of its second year," says Mervosh. "Try to eliminate it before any seeds are produced."

Japanese stiltgrass is fast-moving invader that produces voluminous seeds in September. Mervosh recommends mowing or weed-whacking.

"Cut the stiltgrass down as low as possible in mid to late August so it won't have time to produce many seeds before being killed by the first frost," he says.

Mervosh emphasizes that persistence counts when it comes to these mechanical strategies.

"If these plants have been present for several years, there will be a large seed bank stored in the soil," he says. "Seeds of Japanese stiltgrass and garlic mustard can remain viable in soil for more than five years. But with vigilance, you'll exhaust the stored seeds and the problem will decline significantly."

And what about the clippings of these problem plants? If you have space and time, do the world a favor and let them dry out in the sun until you are sure they are dead. Bag them before taking them to the dump so they can't resprout elsewhere. Alternatively, smother the cuttings under black plastic at home to prevent their further spread.

Weeds—and herbicides—provoke anxiety for many. While the world will never be weed-free, it's reassuring to know there are ways to manage their numbers without chemicals.

Kathy Connolly is a landscape designer from Old Saybrook. Contact her and see her speaking schedule at [www.SpeakingofLandscapes.com](http://www.SpeakingofLandscapes.com).