

How Invasive Plants Harm our Gardens and Forests

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When I first started gardening, I only wanted to learn about plants I was tending. I thought that learning about weeds was for those who wanted a “Chem-lawn” lawn, not for organic gardeners like me. I quickly discovered, though, that keeping certain plants under control was the difference between eating my home-grown vegetables and enjoying the flowers I planted, or have these areas smothered by invasive plants. Since I became interested in native plants in the last decade, I also learned through personal experience that recognizing and removing invasive plants is critical for native plants and wildlife communities.

Invasive plants are a small group of exotic plants that have entered our region, spread prolifically and negatively altered our natural ecosystem. In Delaware and the surrounding region, invasive plants will likely encroach into your gardens, landscapes, and natural areas. If you don’t know how to recognize them, they may out-compete the ornamental and native plants around your home. A bigger problem occurs outside of your garden when invasive plants out-compete native vegetation in natural areas and may disrupt entire forest ecosystems. Whether brought here for ornamental or commercial purposes, or hitchhikers accidentally introduced, these invaders are growing out-of-control for a number of reasons.

For starters, invasive plants are usually from another continent. Without the ecologic relationships that take millennia to develop, they not only provide little value to wildlife, but also lack natural predators and pathogens. This gives them a competitive edge over native vegetation, allowing them to spread rapidly.

They often exhibit explosive growth rates - growing much faster than natives they are replacing. Many people have heard about “Mile-a-minute” weed - an annual that can grow up to 6” a day, or Kudzu, “The plant that ate the South” which can grow 60’ per season or a foot per day! But have you heard about “Five Leaf Akebia” - a weed we discovered in the woods of Arden, Delaware this past fall? It can grow 5-10 feet per year, and we found it growing undetected UNDER ivy and pachysandra, then popping up and climbing trees.

Invasive plants are prolific seeders. Their numerous seeds often live for years in the soil and can sprout long after the actual plants have been cleared away. Garlic Mustard seeds can survive dormancy for up to 9 years and require persistent removal efforts for consecutive years in order to remove even small populations.

Invasive seeds can disperse far from the original site, often spread by birds eating berries, flying through the air, or “hitchhiking” on mammals. For this reason, an invasive plant in your landscape may have a detrimental effect on natural areas far from your home.

Unchecked, many invasive plants form monocultures. English ivy alone covers many of our forest floors smothering not only wildflowers, but preventing the next generation of trees from growing; Multi-flora rose often replaces large areas of understory and inhibits natural succession; Kudzu can cover farm fields, gardens, buildings, and whole forests in the south and smother forest edges in Delaware.

Heavy vines can pull down trees. None more so than Oriental Bittersweet that provides a slow death through strangulation and heavily-weighted stems. Bittersweet seedlings often climb up parent stems as a direct highway to the canopy. Once the tree has fallen, the area is smothered by sunlight-loving bittersweet vines that ensure no new tree can ever take its place.

Invasives can have other detrimental effects including hastening erosion from shallow roots, such as Multiflora Rose along streams, and changing soil chemistry, such as the allelopathic effects of Garlic Mustard.

Worst of all, several invasive alien plants are sold at your local plant stores! Some include Burning Bush, Japanese barberry, Japanese Honeysuckle, Norway Maple, Amur Honeysuckle, and Chinese Privet. These shrubs planted in the home landscape make seeds which get to the woods, and are displacing native plants at record rates.

The combined effect of this problem is extraordinary - invasive species are now the **SECOND LARGEST THREAT TO BIODIVERSITY** on this planet as they reach exponential growth rates. Economists estimate, too, that invasives currently cost us over \$13 billion a year in damages. ¹

What can we as individuals, do? First, get to know your plants! Learn what should and should not grow in your landscapes and forests. The sooner you can stop the spread of the invasive plants, the more likely you will be able to get it under control and enjoy your garden or natural areas. Learn the difference between the native plants you buy from the Native plant sale and their invaders (such as Marsh Marigold, native, vs. Lesser celandine), so you can keep the weeds from smothering your natives. Learn the difference between red raspberry and blackberries (native) and the invasive wineberry (hint: it’s the only one with red “hairs”), for example, so that the woods near you continue to provide native berries for wildlife.

And when you shop for plants, do your research first and **DO NOT PURCHASE** invasive plants! Ask stores not to sell them. The more you can stop invasive plants from growing out of control, the more likely you can enjoy your garden, and the better chance we have to preserve a diverse ecosystem for future generations.

¹ E. O. Wilson, Simberloff

