

The Problem of Invasive Alien Plants

What are “invasive alien plants” and why are they a problem? Defining “invasive alien plants” probably should begin by defining “native plants.” Plant species native to North America are generally recognized as those occurring here prior to European settlement. Invasive alien plant species are non-native plants that can cause harm to our environment, economy, health and/or human spirit. These non-indigenous species have become established in natural plant communities and wild areas, often out-competing and replacing native plants that are crucial to the beauty and health of our woodlands and meadows and to the wildlife that live there.

Early settlers brought plants to North America from their home lands for many uses such as food and medicine. The introduction of alien plants continues, both intentionally and accidentally, as travel and trade between continents increases. Some invasives, such as garlic mustard, have only gained a foothold in our area in the last decade.

Invasive plants are a problem in our woodlands, meadows, gardens, farms, and roadsides where they displace native or other desirable species. Some invasives have life cycles that enable them to overwhelm wildflowers by out-competing them in early spring. Others cause problems for farmers and gardeners throughout the growing season by crowding out planted crops and robbing them of moisture and nutrients. Invasive shrubs and vines in woodlands are a year-long threat to native wildflowers, shrubs and even mature trees that can be killed by vines that shade and strangle them.

By some estimates there are more than 5,000 species of invasive plants in the U.S. While that’s obviously a daunting number, the most common types in the Chester area are:

- **Garlic mustard** (*Alliaria petiolata*) This native herbaceous biennial from Europe will grow vigorously up to three feet high in sun or shade and can quickly overwhelm other plants, including tree seedlings. It also secretes phytochemicals that impact the ability of roots of native plants, including trees, to obtain nutrients. It is found throughout our region.
- **Narrow-leaved bitter-ress** (*Cardamine impatiens*) Similar to garlic mustard in habit and impact, this is one of the most recent invaders to the Chester area.
- **Japanese stilt grass** (*Microstegium vimineum*) This annual grass will also thrive in sun or shade and quickly replaces other vegetation by producing more than 100 seeds per plant and by out-growing them. It is now entrenched in roadsides and woodlands throughout the region.
- **Oriental bittersweet** (*Celastrus orbiculatus*) Oriental bittersweet is a big problem in woodlands such as Chester Township’s MacGregor and Tiger Brook preserves. It’s a twining woody vine that can grow to 60 feet and that can suffocate native shrubs and trees,
- **Autumn olive** (*Elaeagnus umbellata*) Autumn olive is still sold by some nurseries. It quickly develops into a small tree up to 20 feet high and wide, crowding out nearly everything else in its path. The meadow at the Evans Preserve in Chester is one of the areas that have been seriously impacted by this vigorous invasive plant.
- **Multiflora rose** (*Rosa multiflora*) Also a serious pest at the Evans Preserve, multiflora rose forms impenetrable thickets. Its seeds are spread by birds and it is also sold by some nurseries and was thought to be useful as “living fences.” However, it quickly got out of control and overwhelms native species and meadows.
- **Japanese barberry** (*Berberis thunbergii*) Growing to three or four feet high and wide, Japanese barberry has no natural enemies here. Deer won’t eat it and its root system is very difficult to remove. Its invasive nature is very easy to see in the Chester Preserves and in many other places such as the Jockey Hollow woods outside of Morristown where it is the only visible understory plant in spring.

That's an overview of some of the more problematic invasive plants in our area. Like almost all plants, invasives have some good points and were originally introduced for well-intended reasons. But without natural controls, as found in their native lands, their invasive natures have negatively impacted us aesthetically and economically. Perhaps the most serious impact is on our native birds, insects and wildlife who cannot survive on these alien plants. Any threat to our native flora and fauna will eventually impact us as humans in many ways.

The Chester Environmental Commission is trying to combat invasive plants. Members of the Commission have cleared oriental bittersweet vines at the MacGregor and Tiger Brook Preserves and multiflora rose and autumn olive at the Evans Preserve. The Commission has also been in contact with state and federal agencies to help develop strategies for combating invasive species in Chester's woodland preserves.

Combating invasive plants must start with education. We have to teach the community about the problem and about how to identify the invasive species. This will reduce the likelihood that invasives will be purchased, compounding the problem, since some nurseries are still selling these plants. Community residents, once educated, will begin to start to control invasives on their own property ("think globally, act locally"). This can have an enormous impact on slowing their spread. The Commission will continue to encourage residents to help clear invasives within the Township's woodland preserves: Evans, MacGregor and Tiger Brook.

Commission members conducted a seminar on invasive species this past spring at the Chester Library. We expect to continue this education going forward. The Chester Township "Chronicle" newsletter has included articles about the importance of native plants, and conversely the problems with invasives. This education will continue in future editions of the newsletter.

The Chester Environmental Commission participated in a seminar sponsored by the Chester Garden Club several years ago to help educate residents about the problems of invasive plants and the benefits of native plants.

The Commission has sponsored a Native Plant Sale each spring since 2002. During that time residents have purchased nearly 2000 native wildflowers, ferns, shrubs and trees. Planting native species contributes to the overall health of natural communities which in turn helps to protect our environment, including the air we breathe and our critical water resources. A healthy environment also lifts spirits by protecting our natural world. The Chester Township Environmental Commission hopes to encourage interest in native plants by making them easily available for purchase by our citizens.

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Chester Township Environmental Commission