Lifestyles

Reconsider the green desert of suburban lawns

Kim Eierman

When you look at most properties in Westchester County, or almost anywhere in America, what do you see? A house with a large lawn, some foundation plantings against the house and perhaps a few large trees.

From an ecological perspective, our traditional approach to landscaping is problematic. Why? Because it's far removed from the natural ecosystems that our birds, pollinators and other wildlife depend upon for survival.

To make matters worse, most homeowners load their landscapes with harmful chemical fertilizers, herbicides and pesticides.

With natural areas rapidly diminishing, species declining at historic rates and climate change dealing new blows to environmental health, our own managed landscapes have never been more important. Challenged pollinator bees and threatened Monarch butterflies are just the tip of the ecological iceberg. Unfortunately, many of our traditional gardening and landscaping practices have contributed to unhealthy ecosystems.

In this new column, you will learn how to make simple changes in your landscape that will result in major environmental improvements, no matter the size of your landscape.

Let's start with your lawn, a landscaping idea we adopted generations ago from the great manor houses of Europe. We simply did not understand the long-term ecological ramifications to our own environment.

I have a nickname for the turf lawn, the green desert, because it really is an ecological wasteland. But turf lawns are so prevalent and seem so benign it can be difficult to change conventional thinking.

So, what's so bad about turf lawns? Consider the following facts.

Poorly adapted non-native species

Virtually all grass species in a traditional lawn are non-native species that have been introduced from another country. The consequences of this are significant.

Turf grasses are not well adapted to our environment and require enormous inputs of water, fertilizer and labor, i.e. mowing, to keep them going. And, since turf grasses have not evolved with our native fauna, they do not support our wildlife species, like native plants do.

Water hogs

Research sponsored by NASA in 2005 concluded we use more irrigation on our lawns than farmers do on crops.

Note, turf lawns are deemed to be the single largest irrigated "crop" in America.

The EPA estimates landscape irrigation accounts for nearly one-third of all residential water use, totaling nearly 9 billion gallons of water per day. With more frequent and more severe droughts becoming the norm with climate change, water conservation has become increasingly important. Can we really afford to continue to waste clean drinking water on lawn irrigation?

Carbon emissions

In 2009, the Texas Commission on Environmental Quality found an hour of gas-powered lawn mowing produces as much pollution as four hours of driving a car. Want to reduce climate change? Reducing carbon emissions is key. If you keep any lawn, think about switching to a manual mower or a battery-powered mower.

And skip the polluting gas-powered blowers in your landscape. Not only do they pollute the environment, they compact the soil and diminish soil fertility.

Remember those magical tools we used to use in our landscapes, the broom and the rake? Insist you landscaper use them. If it takes a bit more time, it is well worth it to protect the environment.

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Pesticides, herbicides, fungicides

According to the EPA, Americans use 90 million pounds of herbicides and pesticides on lawns annually. That means U.S. homeowners were using up to 10 times more chemical pesticides per acre than farmers. When you consider the health risks, these numbers become even more troubling.

Beyond Pesticides is a nonprofit environmental organization that reports, of the 30 commonly used lawn pesticides, 19 are linked with cancer, 13 are linked with birth defects, 21 with reproductive effects, 15 with neurotoxicity or abnormal brain development, 26 with liver or kidney damage, 27 are sensitizers and/or irritants, and 11 have the potential to disrupt the endocrine system.

Concerned about your health, the safety of your children and your pets and the well-being of nature's creatures? Then rethink the application of these toxic brews, like the state of Connecticut has done. They have outright banned lawn pesticide applications on the grounds of daycare centers, elementary and middle schools.

If you have a lawn, manage it organically or find an expert who can. Many old-school professionals may tell you maintaining a lawn organically is an impossible achievement. They may just not be up to date on organic land care practices.

One of the leaders in organic turf management, Osborne Organics in Marblehead, Massachusetts, manages well-loved athletic fields organically. Your lawn is a cakewalk compared to a soccer field.

The scale of the problem

Turf lawns often constitute the majority of a typical suburban or commercial landscape. According to a study published in the Journal of Environmental Management in 2005, there were more than 163,800 square kilometers of turf lawns in the U.S., equaling about 40 million acres. Given the increasing development of natural areas since that study, no doubt the aggregate area of ecological deserts has also increased.

How much lawn do you need?

When contemplating a reduction in the size of your lawn, consider whether your household really uses the lawn at all, and if so, how much lawn you really need.

Do you have small children that play on the lawn or pets that exercise on the turf? Keep the lawn your family really uses, maintain it organically and make a plan to get rid of the rest.

Solution: reducing or replacing turf

One of the many problems with a turf lawn is the simple fact that it is a monoculture — it consists of one plant species or closely related species.

Biodiversity is a cornerstone to a healthy ecosystem. Landscapes with many different plant species are more resilient to pests, diseases and the impacts of climate change than are monocultures. If you replace lawn, don't replace one monoculture with another.

The easiest way to begin reducing your lawn is to simply extend the lines of the planting beds you already have. Push your planting beds forward and outward, making them deeper and longer.

What should you fill these new spaces with? Emphasize regional native plants adapted to your environment and appropriate to your site.

Identifying and finding regional native plants is getting easier and The EcoBeneficial Gardener is here to help.

Look for the next column for useful tips on finding and selecting native plants.

Have questions for The EcoBeneficial Gardener? Visit ecobeneficial.com and select "Ask EcoBeneficial."