



November 17, 2022

Interview with NPU - Turf Grass Replacements

Every now and again, we are approached by students working on projects that include native plants! In 2023, Margo Lambert, a student at Anderson University, had some questions for us about making the change to native plants, with a focus on turf grass replacements. We get a lot of these same questions from customers too. So, with Margo's kind permission, we are sharing her questions and our answers with you!

How long has your family been working with native plants and how do you educate people about the benefits of native plants?

We've been learning about native plants fairly intensively since 2006, when Karin started working for Hamilton County Parks. We bought NPU in Sept, 2020.

We engage customers via email subscription, social media (FB & Insta), events like Spark!Fishers, Audubon Society's Hummingbird Migration Celebration, collaborations with adjacent companies like Wild Birds Unlimited to help them fulfill their mission statement goals, NPU HQ open house, and spring garden shows in several central Indiana counties. And of course through speaking directly with customers via our seasonal sales.

Do you see many people who are looking to replace some of their garden or lawn with a more natural and sustainable look?

Loads of people looking to make sustainable and eco-friendly land use choices! Thank goodness! Our business is growing every year. This past July (2022), with the help of Indiana Native Plant Society, we hosted an "open garden" at our home to show people our own native plantings. About 200 people attended! We were gobsmacked!

Most of the turf grasses used for lawns in the US are non-native and may not thrive considering all the different climates across the state. For the climate of Indiana, are the grasses used for lawns supported by the environment?

Few are, although some people and businesses are beginning to look for alternatives like Eco-Lawn blends, buffalo grass, various sedges and so forth. Each have pros and cons. But across the board, non-native turf lawns require a tremendous expenditure of chemicals, potable water, gasoline, personal effort, and MONEY. Our mission is to enable people to spend less money, help wildlife and truly enjoy time spent in the yard.

The type of lawns we have today are basically deserts and don't support the rich, diverse life needed for a healthy ecosystem. What is a sign of a healthy ecosystem?

In one short term: Species Diversity. Not just the plants but the insects, birds, reptiles and mammals that frequent the space and are supported by it. Greater diversity and amount of native plants = greater diversity of wildlife. This extends to the microflora and fauna in the soil as well!

And can a front or back lawn be turned into one using native plants?

We certainly hope so since that's what we've been building on our own property for 17 years! We started by eradicating the non-native species to allow space for native plants to return on their own -- which they have! But we've also been selectively reducing the amount of various trees that were over-represented (like cottonwood and honey locust) to increase diversity in the wooded areas. In the front yard we're always in the process of adding herbaceous plants and shrubs, and expanding the beds to reduce the amount of turf area and mowing that we do.

What are some of the benefits of natives and how are native plants and non-native plants different?

Native plants evolved in concert with each other, and native fauna. Non-native plants do not usually contribute positively to the ecosystem. They are at best taking up room a native plant could be using to support native wildlife. Native plants provide wildlife support through sap, blooms, pollen, leaves, and seeds/fruits/nuts and maintenance of healthy soils including supportive microbes in the soil. Even in death non-native plants don't make the best habitat for small mammals and insects as they break down. Native plants on the other hand, provide exactly the proper nutrition that native wildlife requires, and the sorts of habitats that wildlife needs, whether the native plant is thriving, dying or already dead. Any support non-native plants provide native wildlife is incidental. It has recently been noted that they provide an avenue for the spread of non-native insects and diseases. That can have a devastating effect on native flora, and ultimately native fauna. For instance, the current spread of spotted lanternfly seems to be associated with the presence of Tree of Heaven, *Ailanthus altissima*, the lanternfly's preferred host plant in its own native range. Lanternfly infestations can seriously damage and kill many native tree species.

In Indiana, are there native grass species that could potentially replace regular turf lawns and be

- 1) more beneficial to the surrounding environment?**
- 2) require less maintenance and still look appealing?**

This is a wide open field of inquiry. Not much research has been done with native grasses as to how they respond to mowing and foot traffic. As previously mentioned

various alternatives include buffalo grass which is shorter than traditional turf grass, but is hardy and requires little water or chemical input, and Eco-Grass blends that aren't native but also don't require as much artificial input like mowing, added water, and chemical herbicides/pesticides. Various sedges can be used in areas that get little foot traffic, but they are taller than turf and have a different look.

The goal is to challenge and change long-held associations between success/respectability/wealth and formal gardens/turf lawns. We need to alter people's cultural concepts of what constitutes beauty.

When thinking about grass lawn alternatives, are there sensible options for ground covers that could potentially replace lawns but still provide the traditional green look? How do ground covers work and are they low maintenance? Could herbs be used as a form of ground covers such as thyme and oregano?

Thyme and oregano are non-native. Much like garlic mustard escaped the confines of Eurasian herb gardens to become the invasive pest we know in woodland edges today, we don't want to intentionally spread ANY non-native that may reproduce in unintended areas. Non-native mints and basil are already a threat in our own yard! [See above for discussion of green lawn alternatives that are "turf-like".] As to ground covers, we do have native options but they often work better as "green mulch" than they do as a turf grass replacement for the simple fact that they can't be walked on very much without damage. We find that wild strawberry is happily spreading over our mulch and providing wildlife support at the same time. It also conserves water and reduces surface temperatures, while capturing carbon. Many other ground covers do the same, like wild yarrow, Allegheny pachysandra, rose verbena, wild stonecrop, and small skullcap. Short sedges and grasses like side-oats grama and oak sedge can also fulfill this purpose.

In the world of lawn maintenance, weeds are thought to be a terrible plague for homeowners and gardeners alike. Are some of these plants we call 'weeds' actually beneficial plants? How do weeds help protect and restore the soil and the overall ecosystem?

"Weed" is anything that people don't want in a space. Many if not most plants we call weeds like broadleaf plantain, dandelions, dead nettle, creeping charlie, mock strawberry, European field garlic (that we all grow up calling 'wild onions') and so forth are not helpful or native and should be considered invasive. Honey bees (also NON-NATIVE) get some value from these plants but that should not be confused with value to native bees and other native pollinators that do more for supporting native plants.

Of course, native plants are often also considered weeds. Any replacement of turf or weeds to "improve" soil, restore habitats and ecosystems needs to be accomplished SOLELY with wildtype native species. Keep in mind that many plants now considered to be highly invasive like Amur honeysuckle, multi-flora rose, Russian (autumn) olive,

and so many more were actually ***intentionally introduced*** by state departments of natural resources and transportation! During and after the Great Depression and again after World War II, there was a huge push to modernize and create access to rural areas and natural resources via road projects like our interstate highway system, and massive campaigns to dam rivers for the purpose of reducing flooding, creating water storage for large cities, and providing electricity. These non-native plants were introduced to stabilize slopes, reduce erosion and “beautify” road margins. Why they were chosen over native plants is too long a tale to tell here. The point is: We don’t want to make the same mistakes all over again by trying to fix the “lawn problem” with more non-native plants.

Remember: Native plants all have the capacity to improve soil health, reduce stormwater runoff/erosion, reintroduce and support microbiomes, and rebuild topsoil, *all while they are providing habitat, reducing surface temperatures, and sequestering carbon above and below ground.*

The ‘traditional’ yard is one that has successfully eliminated as many humming, buzzing, and crawling things as possible. Many bugs have a bad reputation but are actually beneficial to a healthy, thriving ecosystem. What ‘pests’ can we encourage to make a home in our yards? How can landowners use their land to help promote the bee population?

What can a homeowner do?

~ **STOP USING GRUB CONTROL/PESTICIDES.** Many “Weed and Feed” products actually contain pesticides so be mindful of the small print!

~ **Leave the leaves!** (And twigs, and logs/deadfall) They can be moved, but don't shred or throw them away! Wood and brush piles are great habitat. Drilling holes into the end of cut wood in a woodpile will provide nesting habitat for native bees.

~ **Plant native plants so bees and other pollinators have food!**

The “pest” that has surprised and impressed us most are the WASPS! Wasps are beautiful, have diverse and amazing life ways, and there are so many different kinds! We’re all used to various hornet species we often call “paper wasps” or “ground wasps/bees”... we don’t notice them until they get all up in our business taking bits of our picnic food or stinging us. But the truth is almost no wasp species are known to sting. This is an example of “observation bias”. That is, we assume they all sting based on our interactions with two or three species when there are actually many dozens of species right here in Indiana.

All this goes for bees too, but people like bumblebees usually and are much more forgiving of bees in general. Even ants and flies are actually quite beautiful and it’s incredible to observe the amount of pollinating and free pest control they do in a native garden. We’ve observed a dozen species at a time on boneset, goldenrod and spotted bee balm right here in our yard. (Don't bee-lieve us? See our [Instagram](#))

What advice would you give to someone who has a tightly manicured lawn, but wants to support a more natural landscape with local biodiversity?

Start small. Begin with a space that is not visible from the street if you're nervous. Most people begin in their back yards and beds. That's FINE! Start with easy, "beginner" plants that need little care and like a wide variety of conditions. Initial successes with plants like purple coneflowers, wild bee balm, and black-eyed susans, give people the confidence to add in other species and spread their native gardener wings. People often tell us they don't have a green thumb and all their plants die.

Maybe their green thumbs are fine, but the plants have been wrong! All native plants need is an opportunity and a nudge!

Another initial entryway into native plants is to replace one or more shrubs in foundation beds or add shrubs along property edges that are currently in turf lawn. These are easy changes to make. As people see the life return to their yard, as they see insects and birds return to their spaces, they change their opinions pretty quickly. Being a steward to your own little patch of ecosystem is its own encouragement!

[Other simple ways to help increase soil health and biodiversity fast: Reduce or eliminate herbicides/pesticides, leave your leaves and twigs in habitat piles in unobtrusive corners of the yard! See previous answer!]