11 WAYS TO EMBRACE SUSTAINABLE LANDSCAPING HEALTHY LAWN CARE AND BEST IRRIGATION PRACTICES

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#1 CONVERT • UNUSED LAWN • TO NATIVE PLANT GARDENS



Take stock of your lawn, determine what parts are used the most. Is there an area that tends to be difficult to mow or maintain? Are there trees on the property? Wet Spots? If so, you may want to consider converting some unused lawn area into a native plant garden that needs very little maintenance compared to a traditional lawn.



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HELPFUL TIPS
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- Plan your native garden September-March
- Plant your native garden April-June
- Visit local nurseries and ask about native plant selections
- Watch DIY videos
- Find local gardening groups for support and advice (Psst...the Penn State Master Gardeners are an awesome resource!)
- Find a local contractor that is trained in sustainable landscaping; Visit https://cblpro.org/ to find one!



Lawns are very costly to maintain, have a very poor infiltration rate, and provide little, if any, ecological benefit. Native plant gardens, on the other hand, provide carbon sequestration, storm water filtration. wildlife habitat. aesthetic appeal, and can be used to create a "park like' setting at home. The biggest bonus to a native plant garden is that since these plants exist in our area naturally, they require very little care other than rain that naturally to flourish happens, into beautiful gardens.

#2 MOW YOUR LAWN HIGHER

Mowing your lawn at a height of 3" or higher is the best management practice that anyone with a lawn should consider. Grass cut too short invites disease, burnt spots, and exposes bare earth, increasing susceptibility to erosion. Most lawn mowers come with height adjustments. Set your mower to mow the height of the grass to no less than 3". During prolonged periods of drought or excessive heat, mowing is not necessary. If mowing must be done, ensure not to mow below 3" to maintain a healthy and drought resistant lawn.



- Mow with a walk behind mower if possible; If not possible, mow in different directions each week to avoid uneven compaction and the formation of ruts
- Avoid mowing when the ground is too wet; It is better to let the grass grow another few days/week than it is to compact the earth beneath the grass

#3 LEAVE A BUFFER OF 35'+ BETWEEN YARD AND STREAM

Anyone who has a stream, creek, or river running through their property, or anyone who maintains the area within a waterway's banks, should consider a riparian buffer of at least 35'. It is common practice for landowners to mow up to the banks of the stream since many desire to view the stream, and the wildlife that frequent its waters and banks. However, this practice leaves stream banks exposed, and facilitates the rapid destruction and degradation of the banks, causing most, if not all benefits of the waterway to be removed over time.

Stream side buffers help to preserve stream banks, natural vegetation, and provide habitat and travel corridors to wildlife. They provide erosion control and sediment/pollution filtration before it enters the water and is carried off site. Buffers also help to protect stream banks that aid in the slowing of storm water, helping to offset the damaging effects of residential flooding, a reality we have experienced in York recent years. By including things like in "recreation, wildlife viewing, etc." in plans to install a buffer, enjoyment of the waterway is still very possible while also protecting the resource and allowing it to provide the ecological services it is capable of in its natural state.

- Don't mow up to the stream banksleave a 35' buffer or more
- Don't build or disturb the land within 35' of a stream
- Don't spray herbicides/pesticides within 35' of a stream
- Need help installing a buffer? Find a local sustainable landscape contractor or contact WAY for help on a DIY project



#4

LAWN CLIPPINGS: USE A MULCHING LAWN MOWER, KEEP ON THE LAWN, OR COMPOST THEM

During the growing season, rather than bagging and disposing of grass clippings, recycle them into your lawn or use them in the compost pile.



Did you know a single professional application of lawn fertilizer runs \$50-\$150? And you can expect to pay upwards of \$1,000 annually for lawn fertilization according to Homeadvisor.com. The best natural fertilizer for a lawn, is the lawn! And the best part? It's free!

Many lawn mowers come with the option to install a "mulching deck" or "mulching blades". These simple upgrades shred grass clippings multiple times before sprinkling them back into the lawn where they become natural fertilizer for the lawn. If mulching is not an option, simply not bagging clippings is just as good. If clippings on the lawn is not an option, collect the clippings and use them in the compost pile.





- Use a mulching mower or
- · Leave the clippings on the lawn or
- Collect the clippings and use in the compost pile
- Compost ratio should be 3:1 of Carbon/Nitrogen (1 bucket of clippings or food scraps to 3 buckets of leaves, shredded cardboard, or sticks)



UTILIZE RAIN BARRELS AND/OR **RAIN GARDENS**



#5

While both methods share the benefit of reduced stormwater runoff, they each have their own unique perks. Rain gardens, when planted appropriately, help support a diverse ecosystem. By utilizing native plants, a rain garden provides habitat for many pollinators like butterflies, bees, hummingbirds, etc. Many native plants produce seeds that are essential food items for bird species over the winter as well. If the rain garden replaced lawn area, it would also help increase biodiversity and decrease the use of resources required to maintain a lawn.

Rain gardens can be installed as a DIY project but depending on the size, utilizing a sustainable landscaper might be a good idea. Rain gardens are installed in a location that can capture rainwater from your gutters, and typically are designed as a basin to hold the rainwater. Rain gardens are typically planted with a variety of native plants and lined with river rock.

Rain gardens and rain barrels both have a similar purpose, reducing the amount of rainfall that leaves your yard as stormwater. Runoff from your downspouts can carry pollutants into streams from either your yard or from roadways if it is directed to the street. By trapping rainwater in either method, you can reduce the impact on local waterways. Additionally, stormwater can cause significant damage to infrastructure if not controlled.





- Rain gardens are best installed in the warmer months
- Install rain gardens where they will collect water from downspouts or other runoff prone areas
- Need help installing a rain garden? Find a local sustainable landscape contractor or contact WAY for help on a DIY project



#5 CONTINUED...

A rain barrel is, simply put, a container that is set up to catch the water from your downspouts to be used later for any nonpotable needs.

By using rainwater collected in rain barrels for tasks like watering lawns and gardens and washing cars, rain barrels help reduce the amount of potable water needed. Potable water undergoes intensive treatment to make it safe to drink, which uses a lot of energy. Using water from a rain barrel helps lower the demand for drinking water, which can save energy.

Fifty-five gallon drums are some of the more commonly used containers. A PVC pipe connector allows for the water to enter the drum from your gutter. An overflow and hose bib can then be installed. Rain barrels can be simple to install for DIYers, and there are many guides online as to how! The York Penn State Extension office is a great resource and has an annual rain barrel workshop and sale.

- Rain barrels can be installed anytime
- After installation, you can use your rain barrels for irrigation of your garden/plants
- Install rain barrels below downspouts
- Don't drink the water from rain barrels
- It's best to disconnect your rain barrel during the winter so it does not freeze



OPTIMIZE IRIGATION PRACTICES

It is important to utilize irrigation methods that are efficient and reduce the amount of water needed. Optimizing your irrigation methods is a crucial step to reducing your "water footprint." Many times people will talk about their carbon footprint- but the amount of water that we use has impacts on our shared natural resources as well. Additionally, treatment of potable water is a very energy intensive process. Wasting water with inefficient irrigation practices also wastes energy- plus can increase stress on our water resources. Over irrigation can lead to increased water runoff, which could carry possible pollutants from your yard into the waterways, especially if you use chemical treatments and fertilizer on your yard. Overwater of plants can also lead to disease and death of some plant species as well.

Automatic sprinklers are a great resource to provide "hands-off" watering, but can lead to excessive overwatering if not managed properly. If you do utilize automatic sprinklers, it is important to adjust them so that the water does not "overspray" your intended area. This overspray is wasted water that will not contribute to your goals. Using more precise irrigation methods, where applicable, will help direct a higher percentage of the irrigation water to the desired location. Some examples of these types of systems include soaker hoses, drip irrigation, and micro-spray systems.

HELPFUL TIPS

- Soaker hoses work best for small gardens on level ground
- Drip irrigation works best in larger gardens configured in long, straight rows
- Micro-spray systems work best for ground cover or multiple plants in an area





#6

#7 WATER DURING THE COOLEST TIMES OF THE DAY

Whenever possible, refrain from watering your plants during the hottest period of the day, and instead, do all watering when the temperature is cooler. Typically, this period will be before 10 am and after 6 pm. Watering in the morning is more preferable to watering in the evening, though evening watering during the hot summer months is still okay.

By watering during the coolest period of the day, you can maximize the amount of water that is actually used by our plants! Watering during the hottest period of the day means that a higher percentage of the water will be lost to evaporation-water that provides no benefit to your plant, and is "wasted." While many times it seems like we have a surplus of water in our section of the Commonwealth, it is important to always work to reduce the volume of resources we use. Decreasing water consumption can lower the stress on the ecosystem. This can be as simple as altering the time you manually water your flowers, or if you have an automated system, adjusting the timing to correspond to the cooler parts of the day.



- Water plants before 10:00 am
- Or water plants after 6:00 pm
- Avoid watering when it is hot; Water will be wasted by evaporation



DISPOSE OF YARD WASTE PROPERLY

What is composting? Simply put, compost is what you get when organic material like food scraps and yard waste decomposes properly. Why should we compost? Food scraps and yard waste together make up an estimated 30% of what we throw away. That could all get composted instead keeping these materials out of landfills, saving space, and reducing methane, a potent greenhouse gas. It's easy to make compost! With 3 basic ingredients and a little bit of work, you will have success:



Browns: dead leaves, branches, & twigs

Greens: grass clippings, vegetable waste, fruit scraps & coffee grounds

Water



- Select a dry, shady spot. Bonus if near a water source like a garden hose
- Add green & brown together; Be sure to chop or shred large pieces into smaller sizes
- Compost ratio should be 3:1 of Carbon/Nitrogen (1 bucket of green to 3 buckets of brown)
- Moisten dry materials when added to your pile
- Mix and turn your pile regularly; A pitchfork is a great tool for this
- When the material at the bottom is dark and rich in color, your compost is ready to use!



#8 CONTINUED...

If composting is not an option at your house, a second option is to recycle leaves, clippings, and pruning discards. Recycling will keep these waste items out of our landfills.

And a third option is to leave the leaves! That's right, just allow fallen leaves to decompose in your yard or rake them into a pile to do so. That is the natural cycle of leaves and what happens in the "wild." By letting leaf piles decompose, the resulting leaf mold can be used as a soil amendment to improve structure and water retention. While the pile decomposes, it will act as a safety zone and shelter for native backyard bugs and critters.



- Use a mulching mower to mulch grass clippings and leaves into your lawn
- Use grass clippings and leaves in garden beds or around trees and shrubs to help prevent weeds
- If your municipality offers curbside pick-up or drop-off yard waste recycling, participate in their program; Contact your municipality directly to find out what materials are accepted and when their program is conducted



#9 USE GREEN WASTE AS FERTILIZER

Green waste is a healthy, organic alternative to chemical fertilizers that are sold at the store. Green waste, also commonly referred to as garden waste, is any organic waste that is biodegradable and can be composted. Green waste examples are grass cuttings, leaves, twigs, weeds and flowers. Kitchen waste, such as fruit and vegetable scraps, tea bags, coffee grounds and eggshells, can also be included in your green waste.

Green waste, or green material, is also a key ingredient in making compost. Green waste is a healthy alternative to chemical fertilizer because it contains high concentrations of nitrogen, the same chemical that is mechanically produced for store bought fertilizers. So using green waste can achieve the same outcomes.

A green waste pile can be created in your backyard to be used as fertilizer for your lawn and garden. A bin can be used to collect the waste, much like you would with composting, but with out the brown, carbon creating, material.



#10 USE PESTICIDES AND FERTILIZERS PROPERLY

Pesticides and fertilizers in lawn care can be beneficial. However, when over-applied, they can have devastating effects on our watersheds. When over-applied, those substances are not fully utilized by plants and consequently, "runoff" into our creeks and streams during rain events. Once our waterways are contaminated, it is difficult to reverse the effects. In addition to harming our waterways, over application of pesticides and fertilizers may leave harmful your homegrown fruit and residues on vegetables, which could affect not only your health, but the health of other plants, wildlife, and fish. It is important to never mix or apply pesticides or fertilizers near wellheads.

stormwater drains, or bodies of water such as creeks and stream.

If you decide to utilize pesticides or fertilizers, be aware of "drift." Drift is the movement of pesticides away from the target area or plants. You should always follow label directions to prevent drift and over-application.



- Never apply on windy days
- Use a coarse droplet nozzle on the sprayer to reduce misting
- Spray as close to the target as possible
- Do not apply on very hot days with temps above 90 degrees
- Check the weather, never apply before rain is forecasted



#11 USE NON-TOXIC PESITICIDES

There are many non-toxic and natural alternatives to traditional pesticides that can be used in gardening to control certain unwanted "pests" such as insects, weeds, and disease-causing organisms. These non-toxic products are preferred to their toxic counterparts because not only are they safer for the environment, they are safer for you and your pets. Choose a product that specifically targets your "pest" instead of a broad spectrum product. In addition, consider implementing companion planting in your landscaping plans. Companion planting is simply when two plants are grown close together for the benefit of one or both of those plants. There are many varieties of herbs, flowers, etc. that can be used for companion planting. Be sure to use only native plants so the insects you want to attract know what to look for.



- Try companion planting to discourage pests without losing the beneficial allies
- "Soft" chemicals, such as soaps, various oils, and diatomaceous earth, provide excellent alternatives to pesticides
- Plant a variety of native species (trees, shrubs & perennials) to provide natural food sources and habitat for birds and insects. Even a small garden will attract a diversity of wildlife if something is blooming throughout the year!