

# EAC Nature News

Brought to you by  
The Charlestown Township Environmental Advisory Committee  
(EAC)

[EAC@Charlestown.pa.us](mailto:EAC@Charlestown.pa.us)

October, 2022



Summer is over, fall is here. Kids in school, parents cheer!

Leaves fall in glorious red and gold hues. Holidays coming so lots to do.

We need winter for nature to rest. To rebuild for spring and show us her best.

Nature brings beauty with every season. For loving the fall, you don't need a reason.

Cold is coming, maybe snow. Cozy up with a blanket, book, hot drink, and just watch the wind blow.

## MISSION

The Charlestown Environmental Advisory Committee's (EAC) mission is to advise the Board of Supervisors on environmental issues, the protection and preservation of natural resources, the

use of open land and creating inventories of natural areas with unique features. All aforementioned advice to be focused within the township and in the best interest and general welfare of its residents.

You are receiving this email because at some event or activity or through networking you signed up to be on the Charlestown EAC mailing list. Please feel free to share this with others who might be interested in future volunteer activities. To see the EAC's annual meeting schedule go to [Charlestown Township](http://Charlestown Township).

- ***If you are passionate about the environment in which we live, consider becoming a member of our EAC. Contact us at [eac@charlestown.pa.us](mailto:eac@charlestown.pa.us) if you are interested.***

## HAPPENINGS

- Our Regular monthly meetings are open to the public. Please join us on the second Monday of the month at 7:00 p.m. Our next meeting is on November 14<sup>th</sup> in Rm 154- the Choral Room - Great Valley Middle School.
- Bird Town PA: There is a small committee applying to Audubon for Charlestown Township to be accepted as a Bird Town Community. If you would like to be part of this effort, please contact Pete Goodman at [peteg5020@gmail.com](mailto:peteg5020@gmail.com).
- Mark your calendars! On November 4th at 7:00 PM in the Great Valley Middle School Choral Room 154, 255 Phoenixville Pike, the EAC is sponsoring an educational presentation by an ambassador who rehabs injured wildlife. Be on the lookout for additional information as the event gets closer.

- Charlestown Day was a success. Everyone had fun! Some pictures are included at the bottom of this newsletter.

## **THINGS TO KNOW**

- Are you interested in learning about the PA Fertilizer Law of 2022? The document is attached at the end of this newsletter.

Our focus this month is on the American obsession with lawns.

## **LAWNS**

**History of Lawns (taken from Wikipedia). See reference at the end of this newsletter.**

By definition, a lawn is an area of soil-covered land planted with grasses and other durable plants such as clover which is maintained at a short height with a lawnmower (or grazing animals) and is usually used for aesthetic and recreational purposes.

The popularity of contemporary lawns comes from 18<sup>th</sup> century England where they tried to replicate the romantic aestheticism of grassy pastorals from Italian landscape paintings.

With suburban expansion, the modern-day lawn has become an ingrained part of American landscapes.

As conservation and environmental protection become widely recognized as critical lifestyle components, awareness is growing about the negative impact expansive lawns have on the environment.

Note: This is a complex topic, and we encourage all to investigate further. Below are some basics.

The negative impacts of lawns stem from the following:

1. Suburban lawns are biological deserts. They offer no survival benefit to humans, animals, or plants.
2. Intense lawn maintenance causes additional biodiversity loss (e.g., mowing frequently to keep grass from growing beyond what is aesthetically pleasing.)
3. Chemical applications and intense watering systems are necessary to maintain the desired aesthetic.
4. The chemicals applied and stormwater runoff from lawn maintenance contaminates waterways and can cause harm to local wildlife, humans, and pets. They increase erosion and flood damage.
5. Lawn chemicals are tracked into homes. Children in households where lawns are treated with pesticides have 6.5 times greater risk of developing leukemia.
6. Lawns are nearly impervious meaning rainwater sheds from a lawn almost as fast as from a driveway.

Here are some facts you might not know:

1. The American lawn care industry is worth over \$32 billion dollars a year.
2. A conventional lawn produces much more carbon dioxide than it absorbs.

3. Gas mowers represent 5% of US air pollution and emit 10x more hydrocarbons than a car for every hour of operation.
4. Lawns are the largest irrigated crop in terms of surface area, taking up even more space than corn, in the United States. Recent satellite photographs have shown that lawns (residential and commercial) now occupy 45.6 million acres, which is 3 times the size of New Jersey! In Pennsylvania, there are over 2 million acres of lawns. Lawn irrigation on the east coast of the United States accounts for 30% of water use!

As per the last Nature News, human water consumption is required for survival and thus a needed resource. With the increasing droughts and fires, some areas of the country are experiencing water shortages. To irrigate farmland and have a consistent water source, areas experiencing these phenomena of nature are drilling into the earth to extract additional water. As this continues and lakes/ rivers etc. dry up, lawns are becoming a liability. This can be a lesson for everyone.

<https://www.cbsnews.com/colorado/news/aurora-could-become-first-colorado-city-to-outlaw-decorative-grass-in-new-landscaping/>.

Traditional lawns often replace native plants that feed pollinators, so bees and butterflies must search a larger area to find food.

Note: The information below comes from <https://extension.psu.edu/lawn-alternatives>.

There are certainly benefits to maintaining some lawn to facilitate play and foot traffic areas. However, for areas of lawn that are not used for these purposes, it is worth considering replacing one or more portion of it with native plants, shrubs, and trees. Another option is allowing more productive species to infiltrate your lawn instead of trying to kill them. Many of these are green, blend in, and can be mowed like a lawn. This includes white clover, black medic and birdsfoot trefoil, creeping thyme, and blue violets (deer resistant) which act as built-in fertilizers by fixing nitrogen and reducing greenhouse gases.

There are also no-mow grasses that mimic the green of a lawn. They require little water, added nutrition, and fertilization. Consider varieties such as fine fescue blends and/or Pennsylvania sedge which is drought resistant and suppresses weeds.

Another alternative is a meadow garden to replace a section that is currently an open sunny lawn. Choose a mix of grasses and perennial wildflowers native to Pennsylvania to fill your new garden. Be patient – they may take 2-3 years to get fully established. Meadows can be beautiful and teem with life, attracting pollinators and providing critical habitat, food, and refuge for wildlife.

One of the easiest and low maintenance things you can do is to convert more of your lawn to shrub and tree beds. They provide privacy, clean/cool air, and oxygen, and they combat water pollution and erosion. Shorter native groundcovers are great for steep hillsides.

Consider taking a small area of your lawn and experimenting with these ecologically beneficial alternatives and if you do undertake such a venture, let us know and send pictures! [eac@charlestown.pa.us](mailto:eac@charlestown.pa.us).

If you received this newsletter in 2021, we covered the concept of lasagna gardening in a Nature News. Using this method is an easy way to begin the process of converting lawn to garden or meadow. A copy of that issue of Nature News is attached.

**“I can smell autumn dancing in the breeze. The sweet chill of pumpkin and the crisp sunburnt leaves.”**

*Ann Drake*

**“And all the lives we ever lived and all the lives to be are full of trees and changing leaves.”**

*Virginia Woolf (To the Lighthouse)*

## Charlestown Day, 2022



For additional information regarding lawns, Wikipedia has many resources. See [https://en.wikipedia.org/wiki/Lawn#Further\\_reading](https://en.wikipedia.org/wiki/Lawn#Further_reading).



## *Suggestion of the month:*

- Avoid using a leaf blower to get rid of your leaves this fall. Try raking them into a pile in an unused part of your property where they can decay on their own. Better yet, compost your leaves along with food waste.
- Don't throw pumpkins in the trash. There are people who collect them and will compost them for you. Alternatively, take them to a forested area and leave them as food for wildlife.

## *Lasagna Method for replacing lawn*



<https://ucanr.edu/sites/CalaverasCountyMasterGardeners/files/185444.pdf>

<http://www.growpittsburgh.org/wp-content/uploads/How-To-Lasagna-Gardening1.pdf>

<https://www.rcmga.org/LasagnaGardening.pdf>

<http://www.ecosystemgardening.com/life-in-the-leaf-litter-dont-throw-a-good-thing-away>

## PA Fertilizer Law of 2022

An important environmental legislative success occurred in PA this year, making us consistent with surround states! A new fertilizer law in PA is the result of years of work by both parties of state governments, non-government, academic, and commercial interests with the purpose of decreasing the amount of nutrients that are washed off into our waterways and all PA bodies of water. The excessive runoff of nutrients often leading to algae blooms that decrease oxygen in the water, produce toxins that have harmful effects on people, fish, and birds, and block sunlight from underwater plants. Excess nutrients (called eutrophication) are causing die-offs of plant and animal species, and is damaging the productivity of aquatic species in the Delaware and Chesapeake Estuaries and Bays, Lake Erie, and smaller bodies of water and streams. This summer of 2022, I saw parts of Pickering Creek where water does not flow vigorously to be very cloudy with a greenish hue, which is thought to be associated with algae.

According to the PA Department of Agriculture (PADA), a fertilizer is any type of substance including one or more recognized plant nutrients, which is used for its plant nutrient content and claimed to have value in promoting plant growth. Unmanipulated animal and vegetable manure, agricultural liming materials, and wood ashes are not defined as fertilizer for these purposes. Fertilizers are used for farm and non-farm uses such as our lawns and golf courses.

The new law restricts fertilizers labeled for use on turf, especially phosphorous and nitrogen. Phosphorous is prohibited in turf fertilizers unless it is an organic based fertilizer or the product is labeled as a starter fertilizer or to repair a turf area. For slow release nitrogen, the fertilizer must contain at least 20% enhanced efficiency nitrogen.

This new Fertilizer law of 2022 states that no person may apply nonaquatic fertilizer with 15 feet of the top of a bank of a lake, pond, wetland, or flowing water. There are specified devices that can be used to apply fertilizer to the top of a waterway bank (see details in link below). The requirements refer to 'all persons' applying the fertilizer. Turf fertilizer cannot be applied after December 15 and before March 1, or where the ground is frozen to a depth of at least two inches, or is snow covered. This year during a clean up of Valley Creek, I saw an open and empty fertilizer bag in the creek; this disposal or careless discarding of fertilizer – in water and direct discharge to a storm drain or waters of PA - would be illegal under the new law.

**Applicators of fertilizer may not apply more than 0.7 pounds of nitrogen or 0.9 pounds of total nitrogen per 1000 square feet. Phosphorous may not be applied to turf unless establishing turf for the first time, repairing a turf area, or applying phosphorous with enhanced efficiency phosphorus or natural organic phosphorus. The application rate cannot exceed 0.25 pounds of phosphorous per 1000 square feet (with certain exceptions).**

For more information, see Penn State Extension's [article](#) by Peter Landschoot, PhD, Professor of Turfgrass Science.

<https://extension.psu.edu/governor-wolf-signs-turfgrass-fertilizer-bill-into-law>

