

The Long Island Pesticide Pollution Prevention Project

Project Leaders

Gangloff-Kaufmann, J.L., C. Carmenatty, M. Frye, J. Lampman, D. Marvin

Cooperators

Carpentier, J., J. Rodler (NYSDEC), F. Koelbel (Port Jefferson School District), F. Metzger (Amityville UFSD)

Funding Sources

The New York State Department of Environmental Conservation

Project Location

Nassau and Suffolk Counties, New York

Abstract

In late 2020, the NY State Department of Environmental Conservation (NYSDEC) provided funding to the NYSIPM Program to create a public outreach campaign to protect Long Island's aquifers from pesticide pollution. As part of the NYSDEC's Long Island Pesticide Pollution Prevention Strategy, this outreach campaign was dubbed "Our Land, Our Water". The campaign takes a multi-faceted approach to reaching residents of Nassau and Suffolk Counties via social media, on-site demonstration of sustainable lawn management and eventually in-person trainings for individuals and landscape industry workers.

Background and Justification

The source of drinking water for Long Island's more than 3 million residents is underground aquifers, which yield over 300 million gallons of water each day. Replenished by rainfall, aquifers easily become contaminated with chemicals used, applied to and spilled on the ground. Among those chemicals are pesticides and fertilizers used to maintain lawns and landscapes, including golf courses, home lawns and commercial turfgrass and sod. The Long Island Pesticide Pollution Prevention strategy, initiated by the NY State Department of Environmental Conservation, is a blueprint for reducing risks of pesticide pollution and protecting water quality while continuing to manage pests effectively. The New York State Integrated Pest Management Program (NYSIPM) plays an educational role in this blueprint and has created a public outreach campaign to target Long Islanders with messages about protecting water quality, reducing inputs to home lawns and landscapes. The main objective is to encourage Long Islanders to consider IPM alternatives to lawn and landscape pesticides and to choose sustainable practices that protect the environment.

Objectives

- Develop an outreach campaign that encourages residents and contractors to consider using alternatives to pesticides, fewer pesticides, low-risk and cultural methods to manage landscapes and turfgrass pests.
- Reduce the use of lawn and landscape pesticides and fertilizers on Long Island to protect ground and surface waters.
- Raise awareness and enthusiasm for native landscapes and pollinator protection.

Procedures

We began by creating a title for the campaign – “Our Land, Our Water” and purchasing the domain www.ourlandourwater.org and set the link to redirect to the NYSIPM webpage for “Our Land, Our Water” as we did with our tick campaign www.dontgettickedny.org. We created a logo for the campaign and developed a landing page for the campaign <https://nysipm.cornell.edu/environment/our-land-our-water/> with feedback from a specific focus group of middle-class Long Island residents. The page features a video from The Nature Conservancy about how pollutants move into Long Island aquifers. Subpages include “Lawn Care Basics – Feed, Water and Mow Like a Pro”, “What’s Wrong with my Lawn?” and pages on insect pests and weeds. More information will be added on sustainable practices for the landscape. Other graphics and a video have been created and still more are to come that feature timely messages about sustainable practices in landscapes.

A previous needs assessment indicated that this project and others would benefit from having a communications specialist. The project leader organized the search committee, application reviews, meetings, interviews, gathering of references and evaluations of candidates, representing a great quantity of time. The Search Committee was composed of seven NYSIPM staff and Mary Centrella of Cornell’s Pesticide Safety Education Program. Advertisements were spread across demographics and in sources that should have attracted a diversity of applicants (but that result was a little disappointing). Out of nearly 50 applicants, the search committee identified three applicants who were interviewed in greater depth by all teams in the NYSIPM Program. On October 5th Carrie Carmenatty began her work in the NYSIPM Program. Carrie’s work will focus heavily on marketing the Long Island Pesticide Pollution Prevention campaign to Long Islanders in the most effective ways.

Working with a long-time IPM collaborator we plan to create a sustainable lawn management demonstration plot in a very visible section of the Port Jefferson School District front lawn, Project leader met with the Amityville School District facilities staff to plan a second location. The project will now be staged in diverse communities, from average income to higher income school district properties. Beginning in early spring (2022) these plots will be managed with higher mowing heights, overseeding and possibly aeration for a season, or possible two. The changes in lawn quality (number of weeds per square foot, etc) will be measured and demonstrated to the community as sustainable lawn management. Photos of before and after, plus creative signage will help with public outreach to the school community and beyond.

Results and Discussion

Thus far, the development of this campaign has resulted in a website, social media graphics, a mowing card, a video and plans for a field demonstration of sustainable lawn practices for public viewing. The website for “Our Land, Our Water” features a variety of IPM and sustainability resources already available within Cornell and in other extension programs with a digested description and “Pro-Tips” and graphics that increase information availability to the reader. As the COVID-19 pandemic restrictions ease, we aim to engage in person with Long Islanders to promote the use of sustainable land care practices.

Outcomes and Impacts

We developed a Lawn Mowing Guide with “1/3 rule”, other important instructions and a ruler along the side. This card will be printed in early 2022 as a 3”x5” tool for homeowners and lawn care pros to learn to measure the height of lawn and landscape turf and to mow properly.

On November 5th, 2020, Jody Gangloff-Kaufmann made a presentation at Cornell Cooperative Extension’s Ag-Inservice about the project. This conference is a statewide Extension system learning experience and the intent was to let CCE educators know that the effort is forthcoming and why.

The facilities director for Amityville School District has requested training for their grounds staff on lawn maintenance, which will be provided in the first half of 2022.

The arrival of spotted lanternfly in New York will also be leveraged by this campaign to place a focus on non-pesticide control options for this pest in home yards and landscapes.

Jody Gangloff-Kaufmann has been asked to present “Our Land, Our Water” in the April “What’s Bugging You – First Fridays” event (April 1). This will be the official launch event for the campaign. We will actively advertise the event to residents of Nassau and Suffolk Counties using paid social media boosts. With the addition of a Bilingual Specialist to the NYSIPM staff, we are planning to host this event in both English and Spanish.

Publications

Website: “Our Land, Our Water” <https://nysipm.cornell.edu/environment/our-land-our-water/>

Jody Gangloff-Kaufmann created a short video called “[Stormwater begins in your yard](#)” which explains visually how stormwater runoff with contaminants (like granules of weed and feed) can run right into surface waters and how to avoid that by sweeping granules of product off hard surfaces. Video is currently stored in a BOX folder and will be published on social media channels upon launch of the campaign.





Leave The Leaves!

5 Benefits of a Messy Yard

1. Do it for your soil!

Leaves are essential for building dark, healthy soil. Leaf decomposition supports soil microbes that release the nutrients for plants.

2. Do it for the moisture!

Shredding leaves on the lawn or raking them into flower beds provides protective mulch that keeps the soil moist.

3. Do it for the butterflies!

Many types of butterflies spend the winter as pupae (in cocoons) among dropped leaves. Leaving the leaves on your property protects butterflies and other critters.

4. Do it for the bees!

Most bees are native pollinators that spend the winter protected in stems and garden debris. Let the garden rest through winter, clean up after warmer days arrive.

5. Do it for wildlife!

Old stems, leaves and seed heads of garden plants provide food for wildlife. Seeds and insects that shelter in leaf litter provide food for birds and mammals all winter.

Our Land, Our Water www.ourlandourwater.org www.nysipm.cornell.edu  

Two Rules of Lawn Mowing

Mow High - Cut the lawn on the highest setting for deep roots and fewer weeds.



The 1/3 Rule - Only cut 1/3 of the height, never more. This keeps grass healthy and reduces days spent mowing.

| Mowing Height (inches) | Height of Grass at Mowing (inches) | Length of Grass Cut Off (inches) | Estimated Mowing Frequency (days) |
|------------------------|------------------------------------|----------------------------------|-----------------------------------|
| 2 | 3 | 1 | 3 |
| 2.5 | 3.75 | 1.25 | 4.5 |
| 3 | 4.5 | 1.5 | 5.5 |
| 3.5 | 5.25 | 1.75 | 6.5 |
| 4 | 6 | 2 | 8 |

Days not spent mowing

Our Land, Our Water  For more expert tips see: www.ourlandourwater.org 

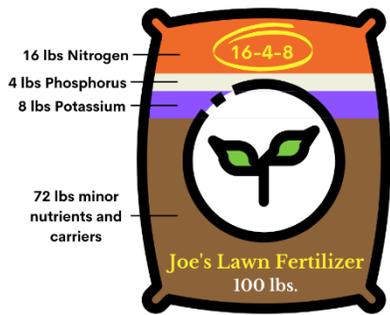
Rethink Weeds



Pollinators rely on early season flowers for survival. Tolerate a few weeds and make a difference!

Our Land, Our Water  www.ourlandourwater.org

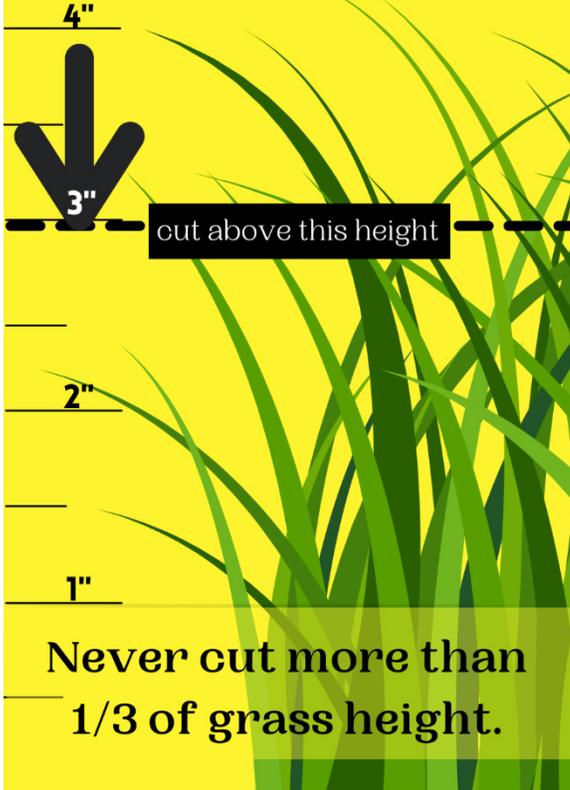
Fertilizer nutrient analysis




Aerate Add organic matter Water deeply

Yearly

Lawn mowing guide for cool season grass



Never cut more than
1/3 of grass height.

Mowing is the most important practice to maintain a dense lawn and reduce weeds.

- Set your mower at 3" or its highest setting to mow cool season grass types
- Mow when the lawn is actively growing
- Don't mow grass during summer heat or drought stress
- Use a sharp mower blade and sharpen blades after 10 hours of use
- Do not use a bag or catcher; leave clippings on the lawn for nutrients
- For more information visit:

www.ourlandourwater.org

Our Land, Our Water



Project led by NYSIPM, Cornell University. Funded by NYS DEC.

