

Pollinator-Friendly Resolution Terminology and FAQs (For Warrant Article 35)

What are pollen and nectar? Pollen is a powdery substance produced by seed-bearing plants; it contains the male genetic material for plant reproduction. Nectar is a sugar-rich liquid produced by plants, typically within flowers.

What are pollinators? Insects and animals—such as bees, wasps, moths, butterflies, birds, flies and small mammals, including bats—visit flowers in search of food, shelter, nest-building materials. While many bees collect pollen intentionally for food, others such as butterflies, birds and bats move pollen accidentally. Pollen sticks on their bodies while they are drinking nectar from a flower and can be transported to other flowers, resulting in pollination.

What is pollination? Pollination occurs when pollen from the male part of the flower (stamen) is carried to the female part of the same or another flower (stigma). For a plant to become fertilized and produce fruits and seeds, pollen must be transferred. Some plants may be fertilized by pollen carried by wind or water.

Why are pollinators important? Pollination is necessary to produce food—typically one out of every three bites of food you eat—and seeds to make new plants. Insects and animals pollinate at least 75% of all the flowering plants on earth, which provide food and habitat for wildlife, stabilize soil, create oxygen and clean the air we breathe.

What is a host plant? Host plants are specific native plants, including trees and shrubs, that provide essential food and habitat for the lifecycle of specific native butterflies and moths. For example, milkweed serves as a host plant for monarch caterpillars. Monarch butterflies lay their eggs on milkweed leaves which serve as the only food source for the larvae. As adults, monarchs source nectar from many different flowering plants including milkweed.

Why is this a non-binding resolution? Does it require funding? *Pollinate Conway!* proposed this resolution to encourage the appreciation and support of pollinators, especially by prioritizing native plant species which are the foundation of a resilient and diverse local environment. While the resolution urges everyone in Conway to adopt specific pollinator-friendly practices, it *does not require* individuals or entities to change their practices. This is a declaration of intent and *does not require funding*.

What are native plants and where can I learn more about them? Some people [define native plants](#) as the plants likely to have been growing in our region before Europeans arrived; not all agree on a date-based definition. Native plants and pollinators are interdependent, having coevolved and adapted to each other over time for survival. For example, plants with long, tubular flowers hide nectar deep inside; only pollinators with long tongues like hummingbirds and some butterfly, moth and bee species can reach the nectar.

Do I need to get rid of my lawn? When thinking about the size and composition of your lawn, consider the costs versus benefits. How much of your lawn do you use? What do you want to expend to maintain it? Some facts to consider: According to a 2005 NASA-sponsored study, [lawns are our nation's largest irrigated crop by area \(49,000 sq mi\)](#), occupying three times as much space as irrigated corn. [In our state, over 20% of the total land area is covered in grass](#). According to the EPA, [landscape irrigation is estimated to account for nearly one-third of all residential water use nationwide, totaling nearly 9 billion gallons per day](#). Large amounts of fertilizer and pesticides are used to keep lawns green and weed-free. Mowing takes time and, [according to the EPA, gasoline-powered lawn equipment emits around 242 million tons of pollutants annually](#). Lawns occupy space that could otherwise be used for pollinator and animal habitat. One small step is to allow more low-growing, flowering native plants that support pollinators in your lawn. If you want to reduce your lawn, keep what you need and consider converting the rest to pollinator habitat.

What is the recommended frequency for mowing a lawn? Will that create a tick problem? In 2019 the U.S. Forest Service published [results of a two-year study](#) of 16 suburban yards in Springfield, MA. Lawns were mowed at one-, two- and three-week intervals, with grass heights ranging from approximately 2.5 to over 10 inches. Their findings: lawns cut the least often had the greatest diversity of bee species; lawns cut every two weeks supported the highest abundance of bees; [mowing frequency did not affect the number of ticks found in the lawns](#).

Do I need to alter when I mow my hayfields? Some areas cannot be managed ideally for pollinators and other wildlife. Mowing schedules may be less flexible for situations such as: fields cultivated for hay, areas requiring control

of invasive plants, areas mowed to restrain woody plant establishment, and field production areas where rodent populations are a concern. For more flexible situations, adjusting mowing activities is one way to promote pollinator health. Limiting mowing, grazing, or haying to 25%-33% of non-cultivated farmland at any one time protects pollinators, their resources, and foraging larvae and adults. To maximize foraging and egg-laying opportunities, avoid maintenance activities while plants are flowering. Ideally, mow only in the fall or winter. ([Adapted from the NRCS New England Pollinator Handbook, 2009](#))

What is a pesticide? [Pesticides](#) are substances intended for controlling or destroying various types of perceived “pests.” Each category of pesticide targets a different group of organisms; for example, insecticides target insects, herbicides target plants, fungicides target fungus, and rodenticides target rodents.

What is a systemic pesticide? [Systemic pesticides](#) are absorbed by and transported through plants and seeds. They can render some or all of a plant toxic to insects that feed on plant tissue. Often used to suppress insects that chew or suck on plants such as aphids, caterpillars, and root nematodes, they harm both target insects and non-target beneficial insects. Systemic insecticides include neonicotinoids (neonics, for short), which are widely recognized for their risk; they are far more toxic to bees than most other insecticides, and persist in plants for years. In the U.S., there are nearly 40 other systemic insecticides in use.

Do I need to stop using all pesticides? No pesticides are completely safe to pollinators but you can follow [guidelines](#) to minimize your impact. Carefully diagnose your pest problem. Learn what type of insect is affecting your plants before you inadvertently kill butterflies and other beneficial insects. Evaluate your pest control options, including beneficial insects, manual removal and traps. If using a pesticide, look for the least toxic option. Read and follow ALL label directions carefully, including application rates, timing and conditions. Often you must delay application until the blooms and pollinators are gone. If in doubt, do not spray. Dispose of unused pesticides properly.

Why not use rat poison? It poses a [significant health threat](#) to children, pets and other nontargeted animals. Predators in our region like [raptors](#), coyote and bobcats are subject to secondary—often lethal—poisoning when they eat rodents that have ingested rodenticides.

What is light pollution and why does it matter? [Light pollution](#) is artificial nighttime lighting mostly associated with cities where it clouds the sky. It disrupts human sleep, disorients migrating birds, and affects the breeding and feeding of insects. Even in Conway, our outside lights cause harm when nocturnal flying insects like moths are drawn to them. They often die from exhaustion, collision or incineration, or become prey to other animals. Moths are pollinators and their caterpillars (larvae) are a major food source for birds, especially baby birds. Consider turning off or using motion activated outdoor lights. At the very least, use yellow or amber LED bulbs which attract fewer insects.

Why do you suggest not raking or blowing the leaves? [Fallen leaves provide habitat for many creatures](#), including pollinators. Most butterflies overwinter under leaves as caterpillars. (The migrating monarch is an exception.) Leaves also insulate native bumblebee queens that shelter underground in late fall and emerge in the spring.

[“Leave the leaves”](#) is advice based on natural processes. Trees and shrubs drop their leaves where nature intends for them to stay, under the plant, to enrich the soil as they break down, suppress weeds and retain moisture. A light layer of leaves in your garden serves the same purposes. It’s free mulch! Use whole leaves in garden beds and lawn edges. Shredding leaves may destroy eggs, caterpillars, and chrysalises, and shredded leaves will not provide the same protection. Too many leaves on the lawn can smother turf; it’s best to rake thicker ones like oak to the edges of your property. Avoid using leaf blowers that cause noise and air pollution and blast insects and other creatures from their shelter. Leaves are valuable organic matter that should stay on your property to support plant and insect life that in turn supports birds and other wildlife.

Are dandelions valuable for pollinators? Dandelions are a poor-quality food source for bees; [they lack vital amino acids](#) and nutrients that bees require. A lawn with dandelions is better for bees than a grass-only lawn. But diversifying your lawn with native flowering groundcovers is far better at providing nectar and pollen.

Where can I get native plants?	Where can I get native plant seeds?
Whately: Native Plant Trust's Nasami Farm	Eco59 – seed originating from Ecoregion 59 (CT)
Berkshires & Taconic Hills: Helia Native Plant	Wild Seed Project (ME)
Colrain: Checkerspot Farm	Prairie Moon Nursery (MN)
Cummington: Wing and a Prayer Nursery	Ernst Conservation Seeds (PA)
Hadley: That's A Plenty Farm	Pinelands Nursery & Supply (NJ) [PA, NJ, NY ecotypic seed]

What is an ecoregion and ecotypic seed? [Ecoregions](#), as defined by the U.S. EPA, are geographic areas possessing similar climate and environmental characteristics (including geology, landforms, soils, vegetation, wildlife and hydrology). An [ecotype](#) is a genetically distinct population that has adapted to local growing conditions, such as soil chemistry, minimum winter temperatures, and drought. Plants grown from seed collected from such a population (*ecotypic seed*) are adapted to those specific local environmental conditions and support species, such as pollinators, that have coevolved in the landscape. By maintaining the genetic diversity represented in different ecotypes, we preserve the potential for resilience and ability for plants to adapt to changes in climate and other conditions.

Look for more resources on the Conway town website. Visit the Pollinate Conway! page under Open Space Committee. Scan the QR code for quick access.

