

**Spring 2020**

Healthy Lawn - Healthy Bees

by Holly Kocet

Mowing your lawn less frequently and allowing grass to grow a bit longer can greatly benefit our important pollinators. Research shows that reducing lawn mowing to every two weeks will result in significant numbers and diversity of bee species. Mowing at a height of 2-1/2 to 3 inches allows plants like dandelion, violet, and clover to bloom. These flowering plants provide critical nectar and pollen to many species of bees.

The manicured lawn was a European invention for the affluent. Eventually promoted in this country by the American Garden Club, it was made practical for homeowners with the invention of motorized mowers. Manicured lawns are engrained in the American psyche. Lawns are both useful and overused. There is an estimated 40 million acres of lawns, athletic fields, and golf courses nationwide. These pristine and often chemically managed areas may look pleasing but in the eyes of pollinators are vast and useless deserts. Still, some homeowners believe their yards should be perfectly manicured and weed-free. I wish it were not so.

Spring is a time when grass is growing rapidly. Skipping a week may not always be practical since heavy grass clippings would

Leaf Blowers by Mary Wilson

The negative effects of noise and pollution from gas-powered leaf blowers (GLB's) have been known for a long time. They cause or contribute to many serious health and environmental problems including heart disease, asthma, hearing damage, neurological disorders, contamination of air, soil and water, and loss of vegetation and biodiversity.

Most recently a study done at the Harvard School of Public Health found an increased risk of complications and death from COVID-19 due to the fine particulate matter generated by GLBs. These fine particulates are hazardous to lung functioning and overall health, thus adding to the risk of any infectious disease, particularly one as aggressive as COVID-19.


A single commercial GLB emits tens of millions of micrograms of fine particulates per hour at ground level where it is easily inhaled, and these particles may stay suspended in the air for a week or longer.

We are all aware of the noise from GLBs which is not only very annoying but also can create other health problems including threats to hearing, stress-related disorders, interruption of concentration, interference of children's learning and of course, inability to sleep for anyone who works a night shift, including many of our health care workers.

While the homeowner who operates a GLB is at some risk, landscape workers probably face the most risk as they are exposed on a daily basis, not only to the noise and particulate matter but also to the exhaust (carbon monoxide, etc.) from the gas engine as well as other gas powered machines they may be using.

In view of all the above concerns, many towns are seeking a moratorium on the use of GLBs during the summer months at least. This would shift the use of GLBs to manual methods for weekly maintenance and possibly to electric leaf blowers for larger jobs (fall/spring cleanups). A national organization called QuietCommunities has been actively pursuing ways to reduce or eliminate the use of GLBs for some time now.

In addition to a moratorium or ban, QuietCommunities recommends that we can 1) educate the public about the risks of GLBs, 2) remind landscapers that their workers must wear masks and follow social distancing rules, and 3) adopt a longer-term plan to promote the use of cleaner, healthier alternatives that sustain the environment and reduce health risks to everyone.

Reference: Department of Biostatistics, Harvard School of Public Health,, "COVID-19 PM2.5", updated April 2020. QuietCommunities, "COVID-19 and Gas-Powered Leaf Blowers: A Lethal Combination", revised May 3, 2020. 

Mosquito Control by Mary Wilson

As much as we look forward to warmer weather, we know that mosquitoes will be reappearing soon in our yards and public spaces. Since mosquitoes are a nuisance as well as a carrier of some diseases such as West Nile Virus (WNV) and Eastern Equine Encephalitis (EEE), this is a good time to think about how we can reduce mosquito populations at home and in common areas.

It is important to know that studies have shown that spraying pesticides for killing adult mosquitoes (flying, mobile insects) is not an effective, sustainable strategy. Additionally, spraying poses some health risks to humans and the environment.

It is particularly ironic that the pesticides used for mosquito control can have

necessitate raking. Not fun. An alternative is to mow around flowers in your lawn while in bloom. In my own yard, lawn areas are minimal since we prefer natural areas with flowering trees, shrubs and plants for early pollinators. However, areas of lawn with flowers left undisturbed, still outshine most ... and without chemical fertilizers or pesticides.

Obviously, when providing resources for pollinators such as bees and butterflies, you do not want to poison them with lawn and garden pesticides (herbicides, fungicides, insecticides). Each homeowner needs to decide for him or herself whether a pristine, manicured, chemically-treated lawn is really worth harming the very creatures that enrich our lives. By pollinating our food crops and all of our indigenous plants, trees and shrubs, bees ensure that we have food, clean air and water, erosion control, and food for insects that in turn feed birds and other wildlife.

Lawn chemicals also harm other beneficial insects such as lady beetles and lacewings whose job it is to control garden pests.

Children are especially vulnerable to pesticides since their bodies are still developing. Pets too can be harmed when chemical poisons stick to their paws or are sniffed.

Ticks are a concern for many of us. However, there is no evidence to suggest that ticks prefer a lawn that is mowed less frequently. Most lawns are too dry for them. Ticks prefer 100 percent humidity. They thrive in brushy border areas. That is why it is important to keep children's playscapes away from wooded edges and to eliminate Japanese Barberry, a shrub perfectly suited to harbor not only the ticks but also the white-footed mouse responsible for tick-borne disease infection.

There are additional benefits to rethinking lawn maintenance. Setting mowers at a longer height

negative respiratory and immune impacts – *increasing risks for everyone but particularly for the many people already at higher risk for Covid-19*. Certainly aerial spraying should never be done near nursing homes, age-limited housing units, clinics, hospitals, parks, etc.

The most effective and safest way to reduce mosquito populations is by targeting the larval stage where the targets are concentrated, immobile and accessible. Homeowners can have a dramatic impact on local mosquito populations by eliminating any standing water on the property, such as clogged rain gutters, garden containers, wading pools, old tires, birdbaths, recycle bins, etc.

If the source cannot be eliminated, then using a product which contains Bti (*Bacillus thuringiensis* var. *israelensis*), like mosquito "dunk", is recommended, especially in storm drains and sewer treatment plants. Bti is proven effective and has low levels of toxicity to humans and wildlife, with minimal effect on non-target species.

Public land should be cleared of all standing water that could serve as a potential breeding habitat. Businesses should be advised of the hazards of old tires behind gas stations and garages, and asked to recycle the tires or cut them in half. Gutters and ditches in public areas also need regular maintenance to prevent standing water.

For personal protection Beyond Pesticides recommends the following as safe mosquito repellents: Oil of Lemon Eucalyptus, Picardin, IR3535, and essential oils such as lemongrass oil, peppermint oil, clove oil, etc.

Certain plants such as basil, lavender, rosemary, lemongrass, lemon thyme, mint, rosemary, lemon balm, marigolds and other have natural mosquito repelling properties, Growing these either in the ground or in pots near porches or walkways will provide some repellency. 🐝



Does Your Dog Really Need a Perfect Lawn? by Adria Henderson

Spring has finally arrived and, along with its bright green grass shoots and colorful early flowers, comes the constant drone of lawn mowers and the follow-up whine of leaf blowers showering the streets with the toxic residue of lawn care products. It is also the time that our dogs, confined inside for long periods during the icy winter, finally get outside to play and romp in the soft new grass.

If you have applied chemical lawn products or had them applied by a professional company, you will be exposing your dog to a toxic and potentially fatal mix of chemicals.

An early study cited in the January 2012 issue of the *Journal Environmental Research* concluded that exposure to professionally applied lawn products was associated with a significantly higher risk of canine malignant lymphoma (CML). Since that time, many studies have confirmed CML cases to be higher in dogs whose property was treated with lawn products, both herbicides and pesticides.

More recent studies, such as one done by Tufts University School of Veterinary Medicine, concluded that the use of certain lawn care chemicals, specifically weed killers containing 2,4-D is linked to canine cancers, including lymphoma and bladder cancer. 2,4-D is found in many lawn care products including combination products such as Weed N Feed type formulations, which are banned in Canada and elsewhere.



encourages growth of root systems making your lawn more resilient to drought and other stressors. Especially in summer, grass should be allowed to grow longer since taller grass helps shade the soil preventing weed growth and slowing water evaporation. Lawn or turf grass is a cool-season grass and naturally goes dormant in hot, dry summers. If possible, stay off of it and it will recover. Otherwise, re-seeding in fall is an option. Asking your lawn service to skip cuttings during drought will prevent damage and that dust-bowl effect. Grass in shady areas also benefits from longer growth because grass blades have more surface area for conducting photosynthesis. Other tips: avoid scalping, keep mower blades sharp, mow later in the day, avoid mowing when grass is wet, and do not routinely bag your clippings as they are a natural fertilizer. Another benefit of less frequent mowing is reduction in energy costs for fuel and services. Healthy, chemical-free lawns are safer for everyone and homeowners can take pride in knowing that they are also helping our endangered pollinators. 🐝

[Lawn Chemicals Harmful to Pollinators.](#)



Effects from the toxic mix of chemicals may create lasting health problems once ingested or absorbed. These long-term health hazards may include nausea, skin inflammation and rashes, eye irritation and the onset of frequent respiratory problems. And recently a study of canines exposed to herbicides detected such products in dog's urine.

Labels on retail lawn care chemicals often claim that the product is safe for pets when dry, but the chemicals can be reactivated by morning dew. Also, dried chemical dust that remains on the lawn can get trapped in dog's fur and tracked inside, becoming embedded in carpets, dog beds and upholstered fabrics. This dust can linger for days, risking further exposure to your dog and other pets (and you).

To avoid exposing your dog and other household pets to these poisons, here are some precautions you can take to keep them safe:

1. Keep your dog away from treated areas as much as possible.
2. Wipe your dog down before bringing him inside if he has played on a chemically treated lawn.
3. Check with your city and town about the chemicals used in public parks and playing fields and keep your dogs away from those areas.
4. Become familiar with the chemical lawn care products used by companies and sold in garden centers.
5. Always read the warning labels on garden products BEFORE you purchase them.
6. Ask your lawn care company for a list of the lawn care chemicals being planned for use.
7. Check out the many natural lawn care products at your local garden center.

Bright yellow "caution signs" are placed by lawn care companies advising that chemicals have been applied. At first it is not obvious, but these signs do contain a distinct outline of a dog. Since dogs cannot read, it is up to us to protect our furry family members. 🐝

