

# Gas-powered Leaf Blowers ~ Time to rethink

Many of us have grown up with, or grown used to, the use of leaf blowers. But now that we know of their multiple negative effects, it's time to question their use and look for alternative ways to maintain our yards.

## What's Wrong with Gas Powered Leaf Blowers\* (GLBs)?

### **NOISE!**

GLBs generate noise levels of 95-115 decibels at close range and exceed the EPA's recommended maximum noise level of 80 decibels, even at 50 feet. Bedford residents are exposed to the sometimes relentless sounds of neighbors' leaf blowers, which carry long distances because of the machines' narrow-frequency bandwidth, disturbing multiple neighbors at the same time. People who are at home during the day, the elderly, the sick, the young, are all disturbed, sometimes for hours on end.

Noise is detrimental to hearing and to mental health. The ears of infants and young children are especially vulnerable to the high intensity noise that leaf blowers produce because their auditory systems are undergoing rapid growth and development. The World Health Organization (WHO) recommends ambient noise levels of 55 decibels or less. Blood pressure, adrenaline, heart rates and nervous stress are all exacerbated by leaf blower noise.

Noise degrades quality of life: it reduces the ability to enjoy being outdoors, taking walks, or working in or enjoying our own back yards.

### **WORKER SAFETY**

OSHA, the Occupational and Safety Act, requires hearing protection of any workers using equipment that generates noise over 85 dB. WHO notes the predictable risk of hearing damage from noise above 75 dB. Many workers are given no protection at all and, according to the American Academy of Otolaryngology, half the wearers of hearing protection do not get the expected benefits due to ill-fitting equipment or improper use.

Workers are also at risk from exposure to the air pollution of GLBs, described below.

### **AIR POLLUTION**

**Gas Fumes:** The two-stroke engine of a GLB is very inefficient, often releasing 25% of its unburned gasoline in exhaust fumes, according to studies of the Air Resources Board of the CA DEPA. The exhaust contains harmful hydrocarbons and oxides of nitrogen, both pollutants that contribute to smog and health problems. A [study by Edmunds.com](#) showed a gas leaf blower to be drastically less efficient than a Ford F-150 Raptor truck. An Echo 2-stroke leaf blower generated 23 times more carbon monoxide and nearly 300 *times* more non-methane hydrocarbons (NMHC) than the Raptor. Another study showed that a gas leaf blower operated for one hour generates the same amount of pollution as 20 cars idling.

Additionally, the powerful force of the GLB pushes much more than leaves into the air: fine particles of heavy metals, pesticides and herbicides, feces, and other contaminants in the soil are disturbed and can linger in the air for hours on a hot, humid summer day, affecting asthmatics and those with other breathing issues, the elderly, the young and pets.

<http://www.quietcommunities.org/leaf-blowers-quality-life-public-health-issue/>

[www.epa.gov/air/particlepollution](http://www.epa.gov/air/particlepollution)

## **DESTRUCTION OF GROWING CONDITIONS FOR PLANTS AND WILDLIFE**

Commercial grade leaf blowers blow a concentrated stream of air onto plants at up to 200 mph – stronger than a hurricane!

- destroy new plant growth and developing flowers
- blow topsoil away; topsoil is what plants need to flourish and grow
- cause soil compaction, which makes growing conditions very hard
- cause dehydration, effectively burning tender leaves
- suspend photosynthesis and other natural plant functions, slowing plant growth.
- spread disease spores, which may have been lying dormant in the soil or on fallen debris, and are then blown back onto plants.
- blow seeds all over, spreading weeds.
- spread insect eggs – if they survive. Most insects in a garden are beneficial but pests are also spread through leaf blower use.
- kill beneficial insects like earthworms and pollinators
- destroy bird nests
- drive birds and other wildlife away
- blow pollen into the air exacerbating allergy issues

## **POLLUTION OF WATER SOURCES**

Many landscapers blow debris into the street, which results in clogged drains, especially after rainfall when any leaf piles are swept down toward the drains causing flooding and erosion. But even grass clippings cause damage when they are swept into storm drains; leaves and grass clippings decompose in our streams, rivers and lakes, adding excessive amounts of nitrogen and phosphorous, which causes algae bloom and destroys aquatic habitats.

Leaf blowers also blow any residual pesticides and herbicides and other foreign material like animal feces into streets, which then go down the drains and into our water supplies. The city of Santa Monica, CA, bans the use of leaf blowers because it recognizes the connection between toxic substances like heavy metals and chemicals being blown into drains and the pollution of its rivers and bays.

## **WHAT'S THE ALTERNATIVE?**

A better landscaping practice to manage leaves is to **MULCH MOW** or **MULCH IN PLACE**.

This involves mowing over leaves so that they stay in place – right where they fell, where nature

needs them to decompose and nourish the soil for the tree they originally came from. Mulching mowing is more efficient, cheaper and better for your landscapes than leaf blowing. Mulch-mowing improves the soil and reduces the need for fertilizer. For more information go to [www.leaveleavesalone.org](http://www.leaveleavesalone.org).

### **Tolerate Some Leaves**

You can get a manicured lawn with mulch mowing, but consider joining the latest gardening trend and tolerate imperfection! Leave the leaves where they fall around shrubs, let them slowly decompose around pachysandra beds. The decomposing leaves form a natural mulch that protects the plants, helps them tolerate dry spells, protects them from extreme heat and cold, and creates a favorable growing environment for plants and beneficial organisms.

### **Don't Use a Leaf Blower for Grass Clippings**

Leave grass clippings on the lawn to decompose and nourish the soil, reducing the need for fertilizer. This also adds organic matter to the soil (which fertilizer can never do) improving the growing conditions for lawns and making them more resistant to stress. If you have lines of lawn clippings, it means you have cut too much grass. Raise your mower for next time or mow more frequently. Mow when the grass is dry. If necessary, use a rake to disperse clippings that lie on the lawn.

### **Use Your Leaves in Your Yard**

Excess leaves can be composted, and the resulting compost is fabulous – and free – nourishment for your plants. Mulch any excess leaves and put them in the compost pile or use them as protective mulch around your shrubs. No need to buy mulch!

### **Go Electric!**

Switch all your landscaping equipment to electric powered machines. There have been huge advances in electric lawn equipment in recent years and many are as powerful and effective as gas-powered equipment – only they don't pollute your neighborhood and they are much quieter to operate. Consumer Reports in its June 2017 issue marked an electric lawn mower as a Best Buy and just as efficient as a gas-powered mower.

Electric leaf blowers are certainly better than liquid-fuel-powered leaf blowers but they still cause environmental damage and are not recommended for healthy yards. Most top gardeners avoid any leaf blower use at all, even on hardscapes. Use a broom for hardscapes and a rake is a very handy tool when called for!

### **Be Part of the Movement!**

Innovative products and approaches are being developed all the time and communities, like Bedford, are starting to take action. Join us! In Westchester, 18 municipalities already have some kind of leaf blower restriction in place.

There is a tremendous business opportunity for landscapers here. Some [landscaping companies](#) are changing equipment to provide clean, quiet, healthy landscape maintenance, but we need more to satisfy demand.

\* Where we use the term “gas” we mean all liquid fueled equipment – including ethanol.

**For more information and resources** go to [www.bedfordny.gov/green-initiatives/](http://www.bedfordny.gov/green-initiatives/) and click on the link for FAQs.