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Response to Fiona Mitchell's Presentation Pleasantville, NY

By: Larry Will



For the full presentation titled, Healthy Yards, by Fiona Mitchell (53 minutes), click: <https://www.youtube.com/watch?v=FF6UMeGcGrE>

For a condensed version dealing only with her comments concerning the leaf blower (4.5 minutes), click:

<https://www.dropbox.com/s/zblwk0tt76axhmv/Condensed%20Leaf%20Blower%20Presentation%20by%20Fiona%20Mitchell.mp4?dl=0>

Introduction

Ms. Mitchell clearly has a problem with the way most people's yards are designed and cared for, that is, she objects to the grooming of one's yard as is the norm for most properties in developed communities. Her reasoning is that today's designs and methods of care are harming our insect population, which will result in the disappearance of our birds. Further, without insects, our topsoil will degenerate to where it will not absorb water and it will ultimately become compacted or blow away.

I know she lives in the northeast, but even there, I find all this hard to believe as ever happening. I have a different view concerning insects. Like snakes, chipmunks, and gophers, I consider them to be pests in my yard. Birds, bats and other wildlife creatures exist to keep these creepy crawlers under control and at my house, they are not doing a very good job.

I live in the South and there are all kinds of bugs that if I had my way, would not exist:

Bag Worms

Fire Ants

Yellow Jackets

Wasps

Carpenter Bees

Termites

Cockroaches

Granddaddy Long Legs

Joro, Golden Orb Spiders

I use legally allowed pesticides according to the directions on the container, and still these critters are a serious problem.

In her evaluation, she feels that the leaf blower contributes to the demise of our insects. I don't agree with her accusations.

The Following are Slides Taken from Her Presentation.

LOSE THE LEAF BLOWERS
LEAF BLOWERS ARE BAD FOR NATURE

Noise pollution
Disrupts wildlife communications
Impacts wildlife habitats
Reduces biodiversity

Powerful blowers
Destroy insect and bird habitats and nesting sites
Erode topsoil
Spread plant disease
Kill beneficial soil microbes



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Disrupts wildlife communications.

Leaf blower noise may momentarily disrupt wildlife communication, assuming birds and other creatures talk to each other. But how would that impact their existence or even their health. At best, they would just move away from the noise source for a while, but don't worry, they will be back. I use a leaf blower for about 10 to 15 minutes, once or twice per week, and I have lots of birds, including hummingbirds, living in my yard. In the morning, they wake us up with their communicating. When it's warm outside, the hummingbirds will drink a full container of nectar from our feeder over the course of one day.

Impacts wildlife habitats.

I cannot understand how a leaf blower can impact wildlife habitats, when it is used to blow grass clippings, leaves and twigs from my driveway and sidewalk after cutting the grass, trimming the hedge or after a rainstorm. Nothing lives or should live on my pavement. I won't use the blower on an anthill, nor do I use it in gopher holes, though I would if I thought it would get rid of them. Creatures living under my leaves can move to the mulch beds if they insist on living in my yard.

Reduces Biodiversity.

I had to look this one up: *(Variety of life on Earth at all levels, from genes to ecosystems, and encompass the evolutionary, ecological, and cultural processes that sustain life.)*

The earth is a pretty big place. There are lots of places, outside my yard, where these biodiverse organisms can exist and thrive. I have been using a leaf blower for a long time and I have never blown away a bird's nest. The impact of a leaf blower is isolated to an area immediately in front of the blower nozzle, at a distance of about 25 feet. It does not impact every square inch of the property. A lawnmower might, but not a blower. I have blown some worms, caterpillars, and yellow jackets off my driveway, but none of them were killed. If they were on my pavement, I just assumed they were headed for the other side anyway. I have killed nothing with my leaf blower.

Destroy insect and bird habitats and nesting sites.

Birds in my yard love the trees, the birdbath, and the feeders. They don't seem to mind the leaf blower long term. Like a dog, they may avoid the blower when I'm using it, but like when the hawk or owl comes around once in a while, they just move away for a time and then return when the coast is clear.

Erode topsoil, spread plant disease, and kill beneficial soil microbes.

Sure, one can likely find where someone can be blowing excessive amounts of dust with a leaf blower, but that is not common. A landscaper or lawn care provider is loath to that practice. Even though the product is called a leaf blower, it perhaps should be called a debris blower. It removes leaves, yes, but it also removes seeds, seed pods, twigs, trash and other contaminants that take away from the aesthetics of one's property, almost always on stabilized soil (grass or decorative rocks) or paved surfaces. When excess dust is generated, it is the operator that is the problem, not the blower.



Huge Pollution.

This slide is ridiculous. The cars in the picture are likely in a California fog. I can't imagine where she found an operator to film, with that much disregard for making dust. None of this is typical. She justifies her comments by citing the test run by edmonds.com. This test is inaccurate. There is a [paper](#) that explains why but suffice it to say that edmonds.com does not know how to test small engines. The equipment they used was designed for testing 300+ horsepower engines not 3 horsepower engines. The parameters for the tests are entirely different. Vehicles are measured according to a variable load, over a timed sequence while leaf blowers are measured in kilograms per horsepower hour at full load, without variation.

As for the use of a catalyst, small off-road engines do use a catalyst if necessary, in order to meet the stringent exhaust emission requirement, set by the California Air Resources Board (CARB) and the Federal Environmental Protection Agency (EPA). [Hydrocarbon exhaust emission](#) has been reduced by as much as 90%, depending on engine size. Dirty two-stroke engines have not been in production since January 2005.

LEAF BLOWERS DEGRADE AIR QUALITY



Dust.

You already know that it is the operator that generates dust, not the leaf blower. Obviously, I am not condoning this for it is a momentary irritation and is not what leaf blowers should be used for. But unless one wets down the surface with water, any method of dust removal, including a leaf vacuum or a broom, will generate airborne particulate matter. Even so, one must consider what constitutes this powdery material. Is it harmful? To understand this fully, you must now consider the following [engineering explanation](#) in order to know if dust is truly a hazard.

I know this can be boring, however, according to the EPA, the particulate matter that is potentially harmful to someone's health is known as PM-10 and PM-2.5. These numbers represent the particle size, which is 10 microns and 2.5 microns respectively. A micron is a meter divided by one million (1/1,000,000 meter). PM-10 has a diameter of 0.000001 meter (0.00004 inches or one-seventh the width of a human hair). They are smaller in size than the suspended dust you see in a ray of sunlight, right within your own living room. For the most part, PM-10 is otherwise invisible. Leaf blowers deal with a much larger sized particle, one that falls back to the earth within a few feet of the nozzle.

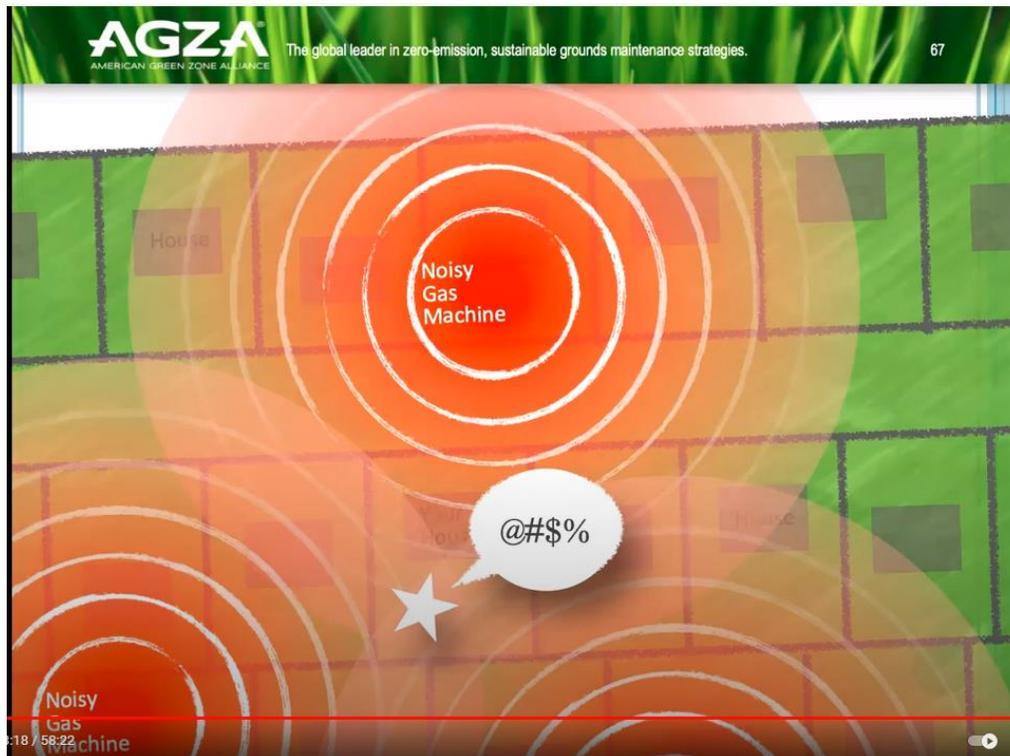
Bear with me for just a minute longer. PM-10 particles originate from the combustion exhaust of a variety of mobile and stationary sources (diesel trucks, woodstoves, power plants, etc.). Their chemical and physical compositions vary widely. Particulate matter can be directly emitted or can be formed in the atmosphere when gaseous pollutants such as SO₂ and NO_x react to form fine particles. Gasoline powered leaf blower engines do not produce these chemicals; however, diesel engines do.

Now here is the bottom line. As for leaf blowers raising this particle into the air, PM-10 is already in the air. Because it is so small and lightweight, the wind keeps these particles suspended. The brown haze you see over a city is comprised of these particles. If this type of particulate matter eventually falls to the ground due to high humidity or condensation such as morning dew, they immediately bond themselves to heavier particles, which when disturbed by a leaf blower will fall back to the ground within a few feet of the nozzle.

You can learn more about PM-10 at the following sites:

<http://www.epa.gov/air/airtrends/aqtrnd95/pm10.html>

<http://www.epa.gov/air/particlepollution/health.html>



Noisy Gas Machine.

One statement Ms. Mitchell made is that leaf blower noise can be irritating up to half a mile away. Really? One half mile is 2640 feet or 880 yards. Maybe someone can hear a leaf blower at that distance, but is it irritating? I doubt it.

If she has been exaggerating like this throughout her presentation, well, you decide what that means.

Yes, there are loud leaf blowers in service and yes, they can be irritating. [But there is an alternative.](#) Today's new blowers are very different. All are quieter than they used to be. Blowers at 65 dB(A), measured per the ANSI Standard B175.2, are as much as 75% quieter than typically loud blowers at 77 dB(A).

The industry learned about the noise issue more than 20 years ago and deliberately addressed this issue in response to complaints. Much has been done to reduce the noise from gasoline powered leaf blowers, spending millions of dollars to make an alternative to noisy blowers available to the consumer.

SWITCH TO ELECTRIC EQUIPMENT

Lithium ion battery blowers

- ❑ Zero emissions
- ❑ Much quieter
- ❑ Comparable to gas performance
- ❑ safe and recyclable)



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Zero emissions.

This is a misnomer. Where is the energy coming from to operate these blowers? Some contractors use generators on the trucks to recharge batteries. Others just plug the battery charger into the nearest wall outlet. Either way, some form of emission is created. By the way, generators generate more than electricity. Noise is a component, isn't it?

Much quieter.

Not so! Check out the [comparison demonstration](#) on the web. Sure, these blowers may be quieter than the loudest gasoline powered leaf blower, but not the "quiet" leaf blower.

Comparable to gas performance.

It is only comparable to the very lowest power gasoline blower. For anything other than removing dry grass clippings or leaves from a paved surface or a deck, it is totally inadequate. Is it more convenient? Yes. Homeowners that are not pressed for time love them. They are easy to use and have no starting issues. One does not have to buy gasoline, oil or deal with fuel containers. But, because of their low power, it takes longer to do the job. You need only check out your Home Depot or Lowes type store to see that battery power is very popular with the general consumer, but for the professional or for people with large yards, only the gasoline version will do the job.



Landscapers have deafeningly loud and massively polluting equipment and dangerous chemicals strapped to their backs.

I apologize in advance for my rhetoric but blaming the landscaper like this is unconscionable. These people only provide the service demanded by their customers. Any method other than the ones they routinely use to maintain the aesthetic beauty of one's property, would put them out of business. Even though that may be Ms. Mitchell's goal, it would be a disaster for an entire industry. Residential areas would look like weed fields. Driveways and sidewalks would be covered in debris. You need only go downtown in the uninhabited parts of your city to know what I am talking about. I don't think the average person with a home of any kind, one that took them a lifetime in most cases to pay for, is willing to let their yards go unkempt.



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Click: [APPENDIX](#) for details.