

October 4, 2021

Response to article by James Fallows:

https://fallows.substack.com/p/gas-powered-leaf-blowers-the-end?utm_campaign=post&utm_medium=web&utm_source=



By: Larry Will
[Leaf Blower Information Specialist](#)
ECHO Inc.
479-256-0282
Email: info@leafblownoise.com
Website: <http://leafblownoise.com>

Mr. Fallows proudly describes himself as an informed person, but with respect to leaf blowers, some people would call him, a “[Spin Doctor](#)”. He gained his prominence and experience as a speech writer for a former US President and now he is a Personal Opinion Commentator for a popular magazine, a profession that is commonplace among today’s biased news organizations. Freedom of speech allows for any comment, regardless of the truth. He is a professional writer that has honed his persuasive skills to the point where people will blindly believe almost anything he would say, about almost any subject. In this case, he has only peripheral and marginal knowledge about the subject, based mostly on the opinion of others. Consequently, one should take whatever he says with a “grain of salt”.

I, on the other hand, have lived the development of the modern leaf blower and guided its application for the past 27 years. I have a special and unique knowledge of what it is that people dislike about the blower and what the truth is concerning these issues. I am a retired Vice President of Engineering for Echo Inc., a leading manufacturer of powered handheld lawn care products. Let me start by providing you with a link to a brief summary of my [qualifications and credentials](#).

Here is something most people do not know. There are groups of people, from around the country, working hard to have gasoline-powered leaf blowers banned. The initial reason was, and still is for that matter, that some of them are noisy and therefore irritating. The concept of citing health hazards as the reason for a ban is contrived. It was initiated by Peter and Susan Kendall of Orinda, California. You can read all about them in the [New Yorker, October 25, 2010 issue](#). Because sound was not a compelling enough reason for banning leaf blowers in their hometown, Ms. Kendall said, *"I would (in the future) try to get the law classified not under noise but under health and safety..."*

Many anti-leaf blower advocates, of which Mr. Fallows appears to be a primary representative, have created websites that dedicate themselves to demeaning the leaf blower. So, the Kendalls and others have searched the Internet for the names of dignitaries and organizations that provide statements supporting their mission, regardless of the truth. They feed off each other, being careful to not express anything that in any way contradicts what they consider to be facts supporting their point of view. Mr. Fallows is likely eager to believe what he too found on the Internet, using these falsehoods to justify his belief and conviction. Some of the statements you hear from these advocates even defy logic. I am sure you know from your experience with the media that if something is said often enough, by many different people, or put in print by many sources, regardless of the facts, people will tend to believe it as being true. They then will proceed to confidently restate these unproven hypotheses emphatically, as is evident in the referenced article.

The following information provides the truth about leaf blowers in contrast to what Mr. Fallows presents in his article, with links in blue to supporting documentation.

First and foremost, Mr. Fallows 'cherry picks' his so-called facts. When he talks about how clean automobiles are, he cites up-to-date information. But when talking about leaf blowers, especially two-stroke engine versions, he quotes outdated information. Case in point: His reference to the [EPA study](#) about exhaust emission is from 2000, which was compiled five years before leaf blower engines were redesigned to meet strong, EPA mandated, reduced hydrocarbon exhaust emission. Even the fuel used in their testing is from 1990, which does not meet present day Standards.

It is true that at one point, two-stroke engines were crude in that they allowed gasoline, or hydrocarbons, to pass straight through the engine unburned. The reason this was happening was not due to carelessness on the part of the manufacturer, but it was part of the engine's cooling strategy at the time. But that design has been dead for at least 16 years. The EPA, as was mandated by the Federal Clean Air Act, 1990, wrote new exhaust emission rules that required an 85 to 90% reduction in this type of pollution, depending on engine size.

<https://www.leafblownoise.com/emission%20graph.htm>

There is nothing obsolete about the design of today's modern two-stroke engine. Manufacturers have spent millions of dollars modernizing these fractional horsepower units. They even have catalytic converters. The only thing obsolete about the two-stroke engine is the claim that 1/3 of the fuel mixture goes through the engine unburned. When comparing these engines to automobiles, Mr. Fallows is talking about the Ford model "T" of the two-stroke design.

One can't compare all two-stroke engines from America with that of a design from non-emission-controlled places like Thailand, China and Indonesia. There is no blue smoke coming from today's modern handheld engine for at least two reasons. Almost no fuel goes through the engine unburned, and the oil used has gone from a ratio of 16 to one, gasoline to oil, to 50 to one. Some are even 100 to one. It is the oil that burns blue, not the gasoline. Gasoline burns black, and you don't see that either.

Foggy pictures from Asia are very misleading. They have nothing to do with the leaf blower. These countries have little or no emission controls, on anything. Smog is atrocious in China. I know, I have been there. I have seen Bangkok, Thailand, and Cairo, Egypt too, which also suffer from excessive pollution.

<https://unearthed.greenpeace.org/2018/02/12/shanghai-air-pollution-worse-beijing/>

Benzine is considered a carcinogen, but for that reason, unlike elsewhere around the world, in the US it has been removed from gasoline to a level where it is less than 1.3% of the total volume. In other words, today's two-stroke engine built in America does not produce 60,000 times the recommended safe level of exposure to benzene, as was once stated in a different paper Mr. Fallows wrote.

<https://www.epa.gov/gasoline-standards/gasoline-mobile-source-air-toxics>

The automobile has been improved since the 1950's, that's true. But as you now know, so has the two-stroke engine. As for the emission pollution concern in California, they have a much bigger problem than lawn care equipment. Transportation, (i.e., automobiles and trucks), industrial sources, electric power, and agriculture and forestry burning are far worse. Note that electric power, bought from coal fired powerplants outside California, is a source of energy needed to charge batteries, meaning that battery powered units are not pollution free after all.

<https://www.nytimes.com/interactive/2018/04/30/climate/california-auto-emissions.html>

Everyone knows that loud noises on a daily basis, experienced over long periods of time per day, can contribute to hearing loss, but there are many other reasons. Most commonly, it arises from changes in the inner ear as we age, but it can also result from calcium buildup within the middle ear and from complex changes along the nerve pathways from the ear to the brain. Hearing loss can be caused by viral or bacterial infections, heart conditions or stroke, head injuries, tumors, and certain

medicines. Even excess ear wax can influence hearing.

<https://hearinghealthfoundation.org/seniors>

Here are the facts in detail, which via the indicated links will explain how you are being misled:

Greenhouse gas (carbon dioxide):

Excerpt from Professor Ian Plimer's book in a brief summary: [PLIMER](#) :

"Of course, you know about this evil carbon dioxide that we are trying to suppress - it's that vital chemical compound that every plant requires to live and grow and to synthesize into oxygen for us humans and all animal life."

"Okay, here's the bombshell. The (recent) volcanic eruption in Iceland. Since its first spewing of volcanic ash, it has, in just FOUR DAYS, NEGATED EVERY SINGLE EFFORT you have made in the past five years to control CO₂ emissions on our planet - all of you."

During a vacation trip, my wife and I took in 2019 to the Canadian Rockies, the entire time we were there, the smoke from forest fires (the burning of hydrocarbons), partially obstructed the view of the mountains. On a mountain tram ride near Lake Louise, we couldn't see the surrounding mountains at all. Nobody in the media was talking about the CO₂ pollution from that. Guess what, when the burning ended, it didn't take long for the skies to clear up. Nature is self-healing and always returns to equilibrium. This smoke condition was present from Banff, all the way north to the icefields, over 100 miles.

https://www.leafblownoise.com/#Consider_greenhouse_gasses

To say that leaf blowers are a serious source of greenhouse gas is an uninformed statement. Ten ounces of fuel through a leaf blower (10 minutes running time per week for a typical household) generates about the same amount of CO₂ as that found in a [couple cases of beer](#).

Hydrocarbon emission:

It is illegal for a city or town to ban leaf blowers because of this type of exhaust emission.

<http://leafblownoise.com/Taken%20from%20the%20Federal%20Clean%20Air%20Act.pdf>

https://www.leafblownoise.com/#Can_Leaf_Blowers_be_regulated_locally_to_reduce_emissions

Don't believe the diatribe you hear about leaf blower exhaust emission being worse than a Ford Pickup, or other vehicles for that matter.

<https://www.leafblownoise.com/edmonds%20test%20response2.pdf>

Since January 2005, this type of exhaust emission has been reduced on blowers by as much as 85 to 90%, depending on engine size.

[https://www.leafblownoise.com/#What then is the big complaint](https://www.leafblownoise.com/#What_then_is_the_big_complaint)

Dust:

Only PM10 and PM2.5 particulate matter is hazardous to your health, and leaf blowers are not the source of that constituent in the atmosphere.

[https://www.leafblownoise.com/#Are leaf blowers hazardous to your health](https://www.leafblownoise.com/#Are_leaf_blowers_hazardous_to_your_health)

Take a look at what the source of this airborne particulate matter really is.

<https://www.leafblownoise.com/Table%203%2011%20San%20Joaquin%20Valley%20PM10.doc>

Noise:

Why do these anti-leaf blower advocates fail to mention that “quiet” gasoline powered leaf blowers exist? Well, they do exist! The industry took notice of blower noise more than 25 years ago and deliberately addressed this issue in response to complaints. Much has been done to reduce the noise from all gasoline powered leaf blowers, spending millions of dollars to make an alternative to noisy blowers available to the consumer.

Yes, there still are noisy blowers on the market, but for these units, sound protection is suggested by the manufacture for prolonged exposure. Motorcycle helmets save lives, but it is the rider's responsibility to wear one. So too is it the responsibility of the leaf blower user to wear hearing protection, not that of the manufacturers or the government. Bystanders at some distance from the operator, have nothing to worry about.

In the case of a gasoline-powered leaf blower, sound level is measured at 50 feet to replicate what a bystander will experience. The published values are obtained per the industry Standard ([ANSI B175.2](#)). A “Quiet” leaf blower is 65 dB(A) or less, measured per this Standard. Is it silent? No! But this is at least a seventy-five percent reduction in sound. At the ear of the operator, quiet leaf blowers are only

85 dB(A) and do not require hearing protection [according to OSHA](#). Check out the [video](#) of an actual demonstration developed for the comparison of leaf blower sound on my website. Note that battery-powered blowers are not as quiet as one might think. To understand how sound level is quantified, [click here](#).

As you now know, quiet leaf blowers have been available for a long time, however, not all leaf blowers are quiet. Look at it this way. Sound from today's leaf blowers can be categorized per the following:

- Sound levels from Quiet blowers 65 dB(A) or less, have been reduced by 75%.
- Blowers 71 dB(A) or less, have been reduced by at least 50%.
- Blowers at 77 dB(A) or greater are considered noisy (too loud for residential use).

Mr. Fallows' evaluation that low-frequency sound has a higher sound energy may be correct. However, don't believe the story that gasoline powered leaf blowers generate this kind of frequency. At 6000 RPM, they are anything but low frequency. Harley Davidson motorcycles, garbage trucks and Jet engines are low frequency. The study Mr. Fallows cites may be true, but the accusation against the blower is false.

He admits that it is the high frequency that bothers people. Forget the frequency issue. Gasoline-powered leaf blowers that have been sound attenuated, have nearly eliminated these high frequencies as part of a 75% sound level reduction. <https://scientificsounds.com/index.php/library/neuroacoustics-the-healing-power-of-sound>

Mr. Fallows is telling you all this diatribe against the leaf blower because he would like to see gasoline-powered leaf blowers banned. I say, if you feel that something must be done, ban only the noisy ones. This can easily be done with thoughtful legislation. Fortunately, because of the industry's foresight, anyone that wants to limit the sound emanating from a gas-powered leaf blower can easily determine sound magnitude in the field without testing. The consumer can also determine compliance with local sound limitations at the point of purchase via the attached [label](#). This decal has been on all quiet gasoline powered leaf blowers manufactured in the United States for at least the past fifteen years. If there is no label on a unit, you can assume it is loud and it does not comply.

To learn more about ECHO: <http://www.echo-usa.com/About-ECHO/About-us>