

## Clean Up Your Lawn Equipment!



The hum of a landscaping tool is a prevalent sound during the spring, summer and fall seasons. Perhaps you've even had a few occasions where they have interrupted your online meeting! Landscaping equipment like lawn mowers, weed trimmers, chainsaws and leaf blowers make life much simpler when it comes to landscaping. However, we must also consider the environmental and human health concerns associated with the gasoline engines frequently used in these tools. These engines, particularly those of the 2-stroke variety, emit considerable amounts of particulate matter and volatile organic compounds (VOC).<sup>1</sup> Exposure to particulate matter under 2.5 micrometers (PM<sub>2.5</sub>) has been linked to many health conditions, such as decreased lung function, asthma attacks and even premature death.<sup>2</sup> A few of the VOCs emitted more prevalently by landscaping equipment, particularly benzene, 1,3-butadiene and formaldehyde, are known carcinogens.<sup>3</sup> Additionally, VOCs react with nitrogen oxides (NO<sub>x</sub>) in the presence of sunlight to produce ground-level ozone.<sup>4</sup> The inhalation of ozone at even low concentrations is known to cause a myriad of negative respiratory effects.<sup>4</sup> Operation of gasoline-powered lawn equipment produces a much higher level of PM<sub>2.5</sub> and ground-level ozone within close proximity of the user.

Given these concerns, here are our suggestions for lawn equipment:

- Consider switching to electric-powered equipment. This technology has advanced rapidly with the development of better batteries and looks primed to improve even more in the coming years. While the production of electricity also has associated emissions, they do not occur within the immediate vicinity of the user.
- Use your lawn equipment sparingly. For example, you could consider mowing your lawn less frequently. Even cutting out a few mowing cycles per year makes a difference!
- Do your landscaping by hand. It may not be as quick, but a rake is a perfect substitute for a leaf blower. The exercise and fresh air is good too!
- Try to avoid using your gasoline landscaping tools during peak sunlight hours. Strong UV radiation, especially during the summer, increases the production of ground-level ozone. By working in the morning or late afternoon, you can minimize the ground-level ozone created in your immediate vicinity from your emissions. Good ventilation helps as well!
- Exercise caution when refilling your gasoline equipment, as recommended by the US EPA.<sup>5</sup> Spilled gasoline can increase the concentrations of harmful ground-level ozone.
- If you hire a landscaping company for your lawn, encourage them to adopt some of these practices while working on your lawn.