

Linda Engle Introduction: Sustainable Idaho is brought to you by the Portneuf Resource Council.

Madison Long: Welcome to Sustainable Idaho. I'm your host Madison Long and today I talked with Belinda Breidenbach, the Director of the Environmental Solutions Program, of the Idaho Small Business Development Center, SBDC. SBDC is a state-wide university-based organization that helps entrepreneurs through business consulting and affordable training. We talked about the comparison between cordless electric and gas push lawnmowers.

Electric lawnmowers are started through a quick switch and ignition key, which powers up the rechargeable lithium ion battery packs. The battery is connected to an electronic motor that operates the steel blades. To recharge, the removable battery snaps into a charger, fully charging in 30 minutes to 2 hours. And when the battery eventually reaches the end of its lifespan, it can be replaced without replacing the mower itself.

Gas-powered mowers are sparked to life through yanking on a pull cord. The pull cord then manually spins the engine, forcing it to suck in air and fuel through a gas carburetor. Gas lawnmowers are typically used by landowners with bigger plots or rough terrain that requires more power.

With millions of Americans mowing their lawn per week, what factors should homeowners consider when deciding between a gas powered versus an electric lawnmower?

Belinda Breidenbach: I want to point out, it's not just looking at cost or saving our environment. There's a few practical considerations. With the gas mower, we all know you run out of gas, you have to take that tank up to the station. And the vibrations, a gas mower rattles you. Now that I have the electric, it's so smooth and I don't feel wiped out when I finish mowing. When you put away your mower, a lot of these models fold upright so they stand vertically and I appreciate that because I do not have a big garage.

I think in the past people had experiences that weren't good. I hear a lot of people concerned with a battery fire. And I usually say, so you've never heard of a gas mower catching on fire? We're so accustomed to our gas mowers that we kind of forget that there's a lot of dangers with them.

ML: Electric lawnmowers have evolved from cord-operated, to battery-powered, to autonomous robot mowers, with the ability to mow a quarter acre on one charge. However, despite these improvements, gas-powered lawnmowers remain ahead of electric in terms of power, torque, and ability to cut in different lawn conditions.

How does cost between the two lawn mowers compare?

BB: This is interesting. The gap has really narrowed just within the last year. If you were looking at a lawn mower last year to this year, your basic walk behind gas mower, around three to \$500. Your basic walk behind electric mower, four to \$600. But there is a huge difference when it

comes to operating and maintaining. Depending on how big your yard is, how often you mow, the electric could cost you 10 to \$20 a year to run it. We all know that a gallon of gas costs around \$4.50 plus the oil and stabilizer you have to put in. And those small gas engines have a lot of maintenance problems. They break down frequently.

I have seen estimates that over a five-year period, if you even assume that you're going to replace the battery on an electric mower, the total cost for a gas mower is going to be double the cost for an electric mower. I think if you consider how much more it costs to operate that gas mower, your return should be a pretty quick return on that extra money that you've spent.

ML: According to Electricmowerguide, with proper care, gas lawnmowers last around 8 to 15 years, while electric lawnmowers last around 5 to 10 years.

A Magazine, Home Business, broke down the costs for maintenance and care for each type of mower. For electric lawnmowers, yearly costs for sharpening blades or deck cleaning is about \$80-150. There is also an additional cost roughly every 5-10 years for a replacement lithium-ion battery. Lawncare stores like Home Depot show costs ranging from \$100-300.

However, gas mowers require more maintenance over time. Those units require seasonal maintenance including changing the oil and filter, winterizing fuel, and checking or replacing spark plugs, all of which run up cost. Home Business reports average costs are around \$160-340.

Another big component of lawncare is energy efficiency. How does the energy efficiency and overall primary environmental concerns of electric lawn mowers compare to gas powered models?

BB: When you use a lawn mower, the amount of emissions coming out is equivalent to if you were running 11 cars for the same amount of time. A gas mower is very inefficient and very highly polluting. Plus on those environmental concerns, we all know there's fuel spills with a gas mower, and that's going to contaminate the land and the water. People, again, they've normalized their gas mower.

When it's done, they get rid of it and they don't think twice. There is some metal that you can take for scrap metal, but there's a lot of toxins in that gas mower when you go to dispose of it. The engine oil, the gas. An electric mower, when that battery dies, most big box home improvement stores, they'll take your battery back because they know that 95% of that has value and they can actually recycle and get all the valuable minerals out. You're not actually sending as much to the landfill when you have to dispose of your electric mower.

ML: According to Leo Garden, a lawnmower store, the pollution created by a gas mower is around 6 kg per acre while pollution from an electric is less than a half kg per acre. The electric's greenhouse gas emissions are accounted for indirectly through electricity generation while charging.

A common complaint against gas mowers is their noise pollution, with Tractor Supply reporting that gas mowers generally reach around 95 decibels. Electric mowers reach around 75 decibels, which compares to a washing machine or dishwasher running. The World Health Organization describes hearing exposure to sounds over 75 decibels will lead to hearing loss over time and require hearing protection.

Do you think that electric lawn mowers will eventually replace gas powered models for most consumers?

BB: I definitely do. Early adopters tested out some of those electric models that weren't quite so good, but they've improved and that they're now better than the gas mowers. A lot of commercial lawn companies are switching to electric.

ML: In 2025, Blue Planet Lawn Care in Salt Lake City, Utah, received the Small Business Environmental Stewardship Award for operating a fully electric, zero-emission lawn care company, using battery-powered and solar-charged equipment, promoting pollution reduction, and demonstrating that electric lawn care can be financially sustainable. The company reduced pollution equivalent to 2 million car miles in 2024.

BB: I think we're starting to get more comfortable with electric as the capabilities have increased. And I think we're also getting accustomed because we're getting powerful other lawn equipment, like the blowers and the weed whackers, the trimmers. So it's not that scary a leap to make.

ML Outro: Thank you to Belinda Briedenbach for sharing more about the benefits of electric lawnmowers and how they compare to more traditional gas mowers. We discussed electric mowers and their reduction of noise and air pollution, and waste, with almost equal power opportunities to gas mowers.

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