

A Greener Way to a Green Lawn

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Most summer weekends are filled with the sounds of splashing in swimming pools, kids riding on bicycles, and the din of lawn mowers. Lawn mowers and other gas-powered lawn equipment roar to life in most neighborhoods to keep yards looking trimmed and pristine.

However, these small engines emit a surprisingly large amount of pollution. By some U.S. Environmental Protection Agency (EPA) estimates, engines used to maintain lawns and gardens account for 5 percent of total U.S. air pollution. Although regulation of small engines has not been a priority for the government, new rules will go into effect in the next year or two governing emissions from small engines.

The gasoline engines powering lawn mowers and other yard equipment emit carbon monoxide, a colorless and odorless gas that is toxic to humans. They also emit hydrocarbons and nitrogen oxide that contribute to the formation of ground-level ozone. Operating a gasoline-powered lawn mower for one hour produces the same amount of smog-forming hydrocarbons as driving an average car almost 200 miles, according to the EPA.

What's more, gas lawn mowers are noisy—just ask anyone who wanted to sleep in on a Saturday morning when a neighbor decided to get an early start on yard work.

Luckily for your lawn (and neighbors), options do exist to help keep grass beautifully groomed while reducing air and noise pollution.

A manual reel mower is a great option. These mowers have no engine, no fuel, and use human power to operate. They have zero emissions and operate with very little noise. The cost of a reel mower starts at \$70. To maximize their

effectiveness the blades should be sharpened regularly and the wheels lubricated. These mowers can last years with proper care.

Though it's still hard to push a reel mower through tall grass, today's models are lighter and easier to maneuver than those of several decades ago. They are best-suited for smaller yards, although they can be used on any size lawn. Just keep in mind: the bigger the lawn, the more energy is needed from whoever is doing the mowing!

Electric- and battery-powered mowers offer a clean alternative to the reel mower. Like gas mowers, electric- and battery-operated mowers have a motor that spins a blade, which cuts the blades of grass. They are quiet, emit no direct pollutants, and can either be corded or cordless.

Costs for a corded mower are similar to that of a gas-powered mower, ranging from \$150 to more than \$400. However, they do have one very limiting feature: they must be connected to the house via an extension cord. As you could imagine, users must be aware of where the cord is at all times in order to avoid running over it with the mower.

Cordless rechargeable mowers are more convenient than their corded counterparts. Some cordless mowers have a removable battery that can be charged inside the home and placed in the mower when it is time to mow the lawn. Costs range from \$200 to more than \$500.

Rechargeable mowers are limited by the life of the battery pack. As a result they may not be best for large lawns. When shopping for a cordless mower, look for information on the size of lawn the mower can handle or the minutes the mower will be able to run on a single charge. Many cordless mowers claim to be able to do one-third to one-half acre of yard or have a cutting time of 45–60 minutes. Actual times will vary depending on the age of the battery, height of the grass, and how quickly the user can get the job done.

In recent years, the choice in cordless mowers has expanded, with models introduced by well-established companies like Toro and Black and Decker,



as well as newcomers to the field like Neuton. But cordless mowers receive mixed reviews. Given the high cost of the mowers, careful attention should be paid to the brand and model being purchased. Online reviews of cordless mowers are a helpful resource in picking the right one. Many retailers offer customer reviews of products and these should be looked at prior to purchasing.

Gas-powered lawn mowers can be found on almost every street in America. However, because of rising fuel costs and environmental concerns, more people are switching to human-powered reel mowers or electric mowers. These alternatives are a reliable and attractive alternative to gas-powered models. They pollute less, and perhaps most importantly, they won't disturb your neighbor's summer nap. ■

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The Cooperative Research Network monitors, evaluates, and applies technologies that help electric cooperatives control costs, increase productivity, and enhance service to their consumers.

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