

CREATING QUIETER COMMUNITIES



Dr. Jamie Banks and Area Landscapers Decrease Noise and Pollutants through Cleaner, Quieter Landscape Equipment Use

By Kathy Litchfield
Concord, MA –

Land Care Professional George P. Carrette started his own business converting lawns to food production by installing raised beds for customers in the Concord, Mass. region. Then he heard about landscapers using electrical and battery-powered equipment to maintain residential properties, with the goal of being environmentally-friendly and just so much quieter.

Carrette decided to invest in the idea, given that the neighboring town of Newton has imposed noise restrictions on leaf blowers; noting the rising concern about the environmental and health consequences of using noisy, fuel-powered landscaping equipment on workers, clients and their families; and the fact that he sought a niche in the competitive Greater Boston area landscaping industry.

Last March, the 23-year-old entrepreneur re-created his business by thoroughly researching, and then purchasing a 33-inch “Mean Green Lawn Mower” – electrical and lithium battery-powered - at a cost of about \$9,000.

Because this represented a huge increase in start-up costs, Carrette said he looked at this investment long-term. He put out minimal marketing – about 500 fliers in public places around Concord, advertising his company, Eco-Quiet Lawn Care.

In the first eight months of his business, which grew almost entirely via word of mouth, Carrette made enough profit to triple capacity in 2016, way more than he expected to make in his original gardening business. He skipped the fall advertising originally planned as he was swamped with clients. He now works with a handful of contractors to help him maintain residential properties quietly, in Concord, Lincoln and Lexington and plans to expand into Newton and Acton in 2016.

“Right now, it’s a really good opportunity for young entrepreneurs to switch over and not enter the rat race of conventional landscaping, doing what everyone else is doing,” said Carrette, who recently spoke at an alderman’s meeting in Newton to inform them about the alternatives to using louder gas leaf blowers.

“Put more money into getting this high performance, commercial grade lithium battery operated and electrical equipment and defer other costs while you grow your business. Also, cross compatibility of hand tools specifically, is essential,” he said.

Environmentalist and health care researcher Dr. Jamie Banks, founder of the non-profit educational and outreach organization Quiet Communities, picked up on this national move towards more sustainable, quieter landscape equipment in order to create healthier communities starting in 2013, while she actively participated in a citizens group in Lincoln, Mass. A growing number of communities are being disturbed by the increasing use of landscape contractors in neighborhoods, parks, and school settings who were using a variety of fuel-powered maintenance equipment – including leaf blowers, industrial mowers, trimmers and chainsaws – to do all tasks once conducted manually. As she began studying the health and environmental impacts of conventional fuel-powered equipment, she realized that this problem was affecting hundreds of communities across the country.

California was really the first to address the issue in the 1990s, she said when many towns and cities created noise ordinances, with explicit restrictions on times and hours of use for leaf blowers, in some cases, banning the use of these noisy, fuel-powered noisy machines. Others in different parts of the country have done or are trying to do the same.

“While these efforts are laudable and necessary,” Banks said, “they have been difficult to enforce. We need to also introduce practical, cost-effective solutions.”



The growing use of commercial fuel-powered equipment around our schools, homes, parks and other public spaces is a public health and environmental problem, she said. It is especially problematic for workers, children, seniors and people with chronic conditions who are exposed to loud noise, toxic exhaust, and fine particulates day after day for hours at a time and who are at risk for conditions such as hearing loss, heart disease, asthma, and cancer. The environmental impacts include fuel/chemical spillage; air, water, and soil pollution; ecosystem and plant destruction from noise, pollution and mechanical injury; and, decreasing biodiversity.

Most fuel-powered landscape equipment produces noise over 85 decibels, the level defined by the Occupational Safety and Hazard Association as being harmful to hearing, with some equipment measuring as much as 1,000 times noisier, she said. While workers may be wearing ear protection, children and others in close proximity – whether in their homes, at school, in parks, or shopping centers -- are probably not.

“Quiet Communities is dedicated to protecting our health, environment, and quality of life from the excessive use of industrial outdoor maintenance equipment. We work with communities, businesses, and schools to provide education, outreach, and advocacy focused on informing the public about the risks of related noise and pollution, and beneficial alternative solutions,” said Banks, who holds a Ph.D. in social policy and health economics and masters’ degrees from the Massachusetts Institute of Technology and Dartmouth Medical School.

“Our mission is to promote clean, sustainable, and quiet outdoor maintenance practices as the valued norm,” she said, emphasizing that there is extensive research available demonstrating the harmful effects both short-and long-term from using this equipment. Banks’ own research focuses on emissions, noise, and health and environmental impacts from fuel-powered equipment. Last Spring, her research on national emissions from gas-powered lawn and garden equipment, conducted with help from the US Environmental Protection Agency, was presented at a national conference.

Quiet, clean solutions exist, she said, including sustainable landscaping, manual tools, and lithium powered electric equipment. She is presently working with her team, including community groups and landscape professionals, to spread the word and implement alternative solutions. Commercial grade lithium battery powered equipment has been of special interest, she said, adding that it is now practical and cost effective to use this equipment on many properties.

Our conferences and equipment demonstration at schools and gardens including Tufts University, Wellesley College, and Brooklyn Botanical Gardens, have had a very favorable reception, Banks said.

Quiet Communities has recently presented at conferences including the NOFA Annual Gathering of Accredited Professionals (CT), Cornell Cooperative Extension (NY) conference, Suffolk County (NY)’s sustainability program, and at an American Public Gardens Association symposium (WI).

Through a recently formed partnership with the American Green Zone Alliance, a California-based organization, Quiet Communities will be educating, training and certifying workers in creating “Green Zones™,” areas maintained emissions-free and quietly. Our partnership with AGZA is aimed at bring the pioneering work done on the West Coast to the Northeast and other areas of the country for the benefit of municipalities, college campuses, healthcare facilities, and commercial properties, among others, she adds. Through its work with landscapers, the partnership also helps properties and professionals choose and purchase appropriate, high quality equipment.

While there is presently a small number of landscapers using solely electrical, battery and solar-powered equipment, Banks expects that number to grow exponentially within the next 10 years.



“We believe what we are seeing is the start of an upsurge of interest in clean, quiet, healthy maintenance alternatives,” says Banks.

Quiet Communities is working on a directory of companies that use this new technology to post on its website and make it easier for consumers to find them. Quiet Communities is also seeking members – she encourages professionals to visit the website and join.

While the costs to purchase some of these machines is greater than the cost of their fuel-powered counterparts, the long-term cost benefits are many, agreed Banks, Carrette and also NOFA Organic Land Care Professional Priscilla Williams, owner of Pumpkin Brook Organic Gardening in Townsend, Mass., who began using a quieter, battery-powered leaf blower last year.

“We have purchased so far the Mean Green Mowers Company version of a leaf blower - the first ever for our company. It sounds like a vacuum cleaner! . . . We used it only a few times, mainly to blow leaves off a steep ridge garden that is hard to hand rake. Tried it here in our PBOG plant holding area. I found that the leaves blown to the sides made too thick a layer over the naturalized low bush blueberry growing there, but did a nice job of cleaning up the leaves on the traprock that we use on the ground layer of this holding area,” said Williams. “As finances permit in the future, I would like to purchase their mowers. We started fertilizing and renovating lawns this year in an effort to offer full service to our clients. Had 10 lawns and already have two new additions for next year.”

Carrette said he spent one-twentieth of what he would have spent with his new equipment.

“When things go wrong, the equipment is usually under warranty so you can get replacements,” said Carrette, who recommends keeping batteries charged, storing them in low-humidity facilities, watching out for water corrosion (from washing them), making sure that the equipment is stored at an optimal temperature of around 65 degrees Fahrenheit; and really researching what technology will be right for a landscaping business before purchasing equipment.

“The technology’s improving all the time so you want to be sure to keep up with it and learn what’s becoming available,” he said. Carrette shared that he uses the Mean Green mower (that takes a 90-lb. battery), a Greenworks 80-volt blower (used with battery backpack or two other smaller batteries, weighing about five to eight lbs.) and an 18-inch Greenworks chainsaw.

“Make sure your producer of your equipment is investing in new research and new equipment for those same batteries, in order to increase cross compatibility,” he said.

Banks offers Quiet Communities’ annual report, “Year in Review,” for anyone seeking more, and specific, information about health and environmental impacts of fuel-powered equipment – available to download on the Quiet Communities website. For more information and/or to become a member, visit www.quietcommunities.org or email info@quietcommunities.org.