

# UNDER Control

**A NURSERY PROFESSIONAL'S  
IPM PRACTICES HAVE TURNED  
HER NORTHEAST OPERATION  
INTO AN ENVIRONMENTALLY  
SENSITIVE, CUSTOMIZED SERVICE.**

by MARY M. WOODSEN

**L**aurie Broccolo's landscape business in Rochester, NY, may not charge the lowest prices. Her labor costs are high. She hardly advertises. She even helps the competition.

She breaks the traditional rules of business, but it works — for Laurie, her 29 employees and her 2,800 clients. Indeed, in an industry where the annual client turnover is 20 percent to 30 percent, at Broccolo Tree and Lawn Care, turnover is about 2 percent.

Why such success? In large part, it is because Broccolo practices IPM — a set of techniques that minimizes the use of pesticides while promoting soil and plant health.

"We offer a customized service that's environmentally sensitive," explains Broccolo, who started the business with just one employee — herself — in 1991. "We're in touch with our clients often. We let them know what pest problems we've found — or that their properties are looking great. We love what we do, and it shows."

A typical day at Broccolo Tree and Lawn Care begins at 6:30 a.m. The landscape crews set up their trucks, and their routes, the night before. They may be edging or mulching, planting or pruning, depending on the season or day. But they're also paying attention to the soil, to plant vigor and to signs of stress, insect pests or disease. If they see a problem, they get on their radio and call the IPM "tech" in their area. These techs know the properties well. They know their pests, too, and often can tell the crews if what they've found is a problem and what remedies they might employ.

Even so, back at headquarters, horticulturist Jody Mills keeps busy. During summer she analyzes about 15 samples of mites, bugs and diseased-looking twigs, leaves and blooms each day. And she talks with clients. "It can be hard for customers to see value if their mindset is, 'I'm paying you to come over and spray something,'" Mills says. "Communication is a biggie."

Such careful attention reaps rewards. Catching pests early cuts way back on pesticide use. Many years, Broccolo Tree and Lawn Care has only needed to treat for grubs on about 3 percent of its clients' lawns and gardens. Mills figures that, most years, following IPM protocols for grub management prevents the application of more than 51,000 pounds of product.

Cultural and biological controls, such as pruning shrubs to promote air circulation and expose pests to predation, as well as scouting for pests according to "growing degree days (GDDs)," are among the methods that help keep pesticide use to the bare minimum.

"Growing degree days tell us how quickly insects are developing, based on cumulative daily temperatures that favor their growth," explains Mills. Using the *Cornell Recommends: Pest Management Guide for the Commercial Management of Trees and Shrubs* as her bible, the nursery professional posts regular pest alerts to every crew.

Meanwhile, out in the field, crew members note "plant phenological indicators" that complement the GDDs. "Boxwood leafminers are most vulnerable to treat-



Shop superintendent Al Broccolo created a sprayer rig for Broccolo Tree and Lawn Care's fleet.

ment at about 470 to 700 GDDs," says Mills. "That's when Kousa dogwoods bloom. Now we'll be able to say, 'Oh, the Kousas are in bloom; the boxwood leafminers must be active.'"

The company hasn't been able to do much with releasing natural predators of insect pests, though. "It's hard to pull off in the commercial arena, considering the

logistics of caring for nearly 3,000 properties," Mills says. "But we look for existing predators and try to include predator-friendly plants, like the composite family, in our plantings."

Keeping up-to-date is important in a business like this. The Broccolo group researches topics ranging from reduced-risk biopesticides to how to alleviate soil

compaction. It reads up on studies from Cornell University, Ithaca, NY, and other universities, as well as from the International Society of Arboriculture and the New York State Turfgrass Association — to name a few.

When Broccolo Tree and Lawn Care discovered fertilizing older trees accelerates decay, it stopped treating them. "Now we generally fertilize plantings only during their first three years," Laurie says. "Even then, if a plant seems happy, we leave it alone. Fertilizing tips the balance in favor of pests — it makes plants more nutritious."

The company's biggest source of expertise is the Cornell Cooperative Extension of Monroe County. "We talk with them almost every day," says Mills. "We let them know what we're seeing in the field, and they help us analyze the problems we find. We couldn't survive without them."

"The people at extension have got the goods, and they know we listen to them," adds tech Diane Powell. The cooperative extension's Brian Eshenaur helped the Broccolo team identify two pests new to the area, viburnum leaf beetle and honeylocust twig gall midge.

Viburnum leaf beetle apparently cruised in from Canada in 1998, where it had been stripping and killing native viburnums, such as arrowwood and American cranberry bush, for the past



In addition to speaking with clients, horticulturist Jody Mills analyzes many samples of mites, bugs and diseased-looking twigs, leaves and blooms.



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**Laurie Broccolo educates team members on all aspects of her landscape operation, including equipment built in-house, such as this pneumatic aerator.**

20 years; already it's become prevalent throughout central and western New York, as well as parts of Vermont, Pennsylvania and Ohio. Honeylocust twig gall midge may have come in on nursery stock from Pennsylvania, where it's been known since 1984.

"The viburnum leaf beetle is a real killer," says Mills. "It can destroy some susceptible shrubs in as little as 12 hours. We lost a lot of viburnums that first year, but as we've learned more about the beetle's biology, we've been able to manage it."

Broccolo Tree and Lawn Care also has a close connection with the New York State IPM Program's Jana Lamboy,

a specialist in ornamentals. "[Broccolo team members] are leaders, innovators," says Lamboy. "They empower their staff, their clients, the industry. Recently they asked us to develop an IPM certification program for lawn-care companies, but we need a critical mass of people in the industry in order to get a program off the ground. Broccolo's is way ahead of the pack — but they hope others will join them."

Educating the public about environmental stewardship isn't always easy, says Lamboy, but that's where the business excels. "They're persuasive," she explains. "Some landscapers will do what the client wants regardless of envi-

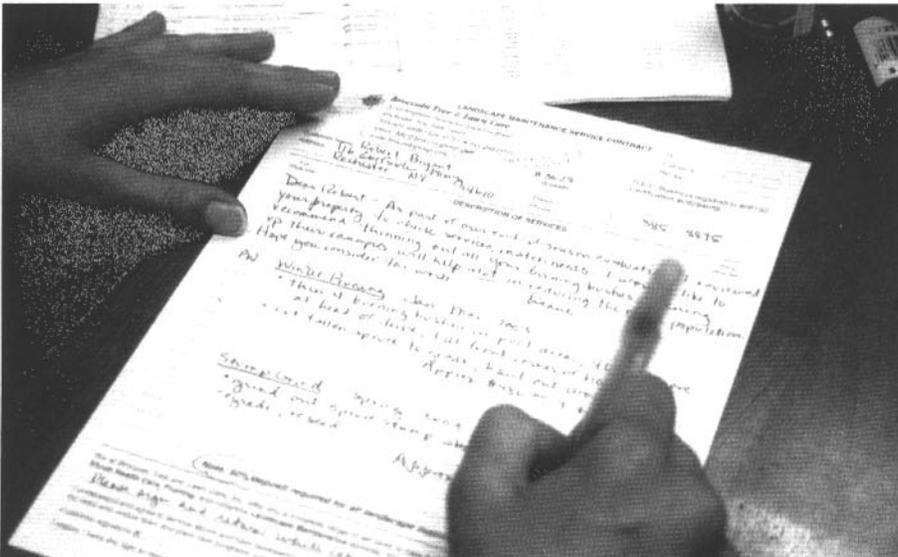


PHOTO COURTESY OF MARY M. WOODS

**IPM tech Diane Powell works up memos to clients, recommending cultural methods to reduce mites.**

ronmental impact. Broccolo's challenges and educates their clients. Those sorts of communication skills are the first thing they teach a new employee."

Indeed, the operation's greatest strength is its staff. "We have hardly any turnover," says Laurie. "We provide year-round employment and offer a flexible schedule to as many of our staff as we can. We encourage them to manage the business as a team — this is not just Laurie's company. Our people have a big say in our forming our strategic plan and deciding how large and how quickly we grow."

During the off-season, staff members plan training sessions, research and purchase new materials, and make thorough evaluations of client properties. For seasonal workers, the company generally hires horticulture students as interns.

Call Broccolo Tree and Lawn Care, and a real person answers. Those waiting for their call to get transferred hear a recording of Laurie, explaining how those leaf spots they may be seeing on trees this fall might have something to do with the weather last spring. Or how to alleviate drought stress on trees and shrubs. Or how a new plant-based product, Ice Ban — derived from the wet milling of corn, and already competitive, price-wise, with calcium chloride — will keep walkways ice-free while avoiding salt, which can kill plants.

From sending out newsletters and "green tips" fliers to garden talk shows, Broccolo Tree and Lawn Care helps its customers understand what IPM is all about. (In fact, the last four digits of its phone number are "4IPM.") After every visit, crews leave notes for their clients to update them on the health of their plants. They also send out handwritten seasonal assessments that provide an overview of each client's property and lay out a treatment plan for the season to come.

But the company goes further. Its equipment and fabrication shop uses soy-based hydraulic fluids, lubricants and two-cycle oils. Shop superintendent Al Broccolo, Laurie's husband, is a member of Clean Cities, a coalition sponsored by the US Department of Energy, which promotes alternative fuel vehicles. The company is currently working on a deal with a local school district to purchase soy-based diesel fuels. "It's a blended diesel that's 5 to 20 percent plant-based; the rest is low-sulfur diesel gas," says Al. "It runs 20 percent cleaner than the standard fare. We want to help get it into the market so the price can come down."

Lately, the business has tested a new

soil aeration technique — pneumatic aeration. The aerator forces a jet of air into the soil, fracturing hardpan and clay while staying easy on the roots. "We used to drill 18-inch-deep holes with a gas-powered 2-inch auger to get nutrients and air into compacted soil, but our pneumatic aerator does so much more," Laurie says. "For example, those hard-to-garden-in sites like under established maple trees — it'll fluff up the soil without damaging the roots, and now we can plant hostas with our fingers." The operation hardly rototills anymore, preferring the aerator for soil prep in almost every site.

Al made the aerator after talking with paving contractors who use compressed air to clean out drains or blow seams before pouring concrete. Broccolo Tree and Lawn Care's 30- by 60-foot fabrication shop is Al's daytime home, where he's designed and built everything from electrical throttles for spreaders to the rigs for the company's spray fleet — 11 trucks outfitted with tanks and hoses that allow crews to spot-treat as they fertilize.

During off-hours, Al and landscape foreman Gary Donofrio work on race cars. Indeed, it was Donofrio who, at a staff meeting on finding the sort of employees who would enjoy working at Broccolo Tree and Lawn Care, suggested sponsoring a race car. His rationale: people who go to drag races like to be outside, active, engaged — all qualities a landscape company requires. So that winter the company got a Monte Carlo, jacked up the horsepower to about 700 (but it burns clean) and hit the drag race circuit the following summer.

"One race we were at, a woman sees our logo on the car, comes up to us, tells us she has a degree in forestry and asks, are we hiring," Laurie recalls. "She fit right in and was a real asset for the time she was with us."

Recycling is a big issue at Broccolo Tree and Lawn Care as well. If a client has an unwanted tree or shrub, crew members bring it back to the nursery and nurture it until they can find another home for it. They pile up all the trimmings and chip them once a year, then compost them. They also pick up compost from a local town dump; the crew found the nutrient content to be higher than that of many commercial composts.

Finally, Broccolo Tree and Lawn Care believes in community. Each year at Tinker Park, near Rochester, the company sponsors Tinker Park Field Days for kids and families. It puts on a puppet show about lawn care and IPM, leads nature walks, teaches pond-critter

identification and demonstrates tree climbing and pruning skills. It also underwrites "A Gathering of Gardeners," a midsummer garden party at the Eastman House (think Kodak) in Rochester. And each year, with other members of the Professional Lawn Care Association of America, the business donates its time, materials and expertise to help beautify the grounds at Arlington National Cemetery and Congressional Cemetery in Washington, DC.

Considering Laurie's commitment to her customers, her community, her employees, the environment and IPM, it's no surprise she's committed to her industry, too. During winter, Broccolo Tree and Lawn Care provides seminars in best practices for mowing companies, managers of commercial properties and sometimes even its competitors in tree, lawn and garden care. This winter, the staff is leading a dozen seminars on everything from pruning for plant health to workplace safety to the New York State Department of Environmental Conservation's pesticide certification course. ("How many people have pruned their hands?" asks IPM landscape maintenance supervisor and safety nut Karolyn Shea. "Chain saws and weed whips are not forgiving!")

"Some people think it's crazy, offering this information to others," says Shea. "But everyone in this industry reflects on the professionalism of every other landscaper. A client who has a bad experience with one company may view others the same way. As professionals, it's important to the industry that we not only maintain high standards but encourage others to as well. Our customers are entrusting their properties to us, and we owe them our best."

The New York State IPM Program agrees. This past winter, it honored Broccolo Tree and Lawn Care with the 2002 Excellence-in-IPM Award. "I'm absolutely thrilled [to have received] this award," Laurie says. "The support of the Cornell community has been key to growing our business, and we're incredibly grateful."

Laurie Broccolo — with about 10 of her employees — received the award on Nov. 13 at the New York State Turf and Grounds Exposition in Syracuse. "Laurie Broccolo built this company, but it's clearly a team effort," said Michael Hoffmann, director of the New York State IPM Program. "We're as thrilled to give this award as they are to get it."

*Mary M. Woodsen is a science writer for the New York State IPM Program at the Cornell Cooperative Extension, Ithaca. ♥*