



Going Deep To Assess The Situation

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Although Nick Penovich is a member of the International Compost Tea Council, he doesn't care whether compost tea deserves its distinction as the beloved miracle elixir capable of solving a plethora of plant ills or as an unworthy substance reviled by 'true' scientists. As the owner of the Lawn Jockey, a landscaping service specializing in organic lawn care, he has moved far beyond that question. The 'Liquid Organics' that he uses in his practice comprise a distinctly evolved form of compost tea, a unique, proprietary blend that has earned the gratitude of hundreds of satisfied customers across the Puget Sound.

As a result of their referrals, Penovich doesn't have time for debate. He stays too busy. Celebrated garden writers including Ann Lovejoy and Chris Smith regularly sing his praises. Golf courses, estates, homeowners and municipalities, like the City of Bainbridge Island, routinely commission his services. And, while his clients don't fully understand all the technical science behind his practices, they appreciate the results of his efforts.

When Scott Mutchler, superintendent of Kitsap Golf and Country Club wanted answers to the problems plaguing a disease prone green, it was to Penovich that he turned.

"Each green will see around 30,000 rounds a year, which is a lot of foot traffic. One particular green, #16, had problems for eons." Mutchler said. "It's in shade, surrounded by trees and for years would be covered with standing water. It could never maintain a thriving turf and was prone to Pink Snow Mold. We tried to combat the water problem by putting 200 feet of drainage under the green, but that fix didn't work. While the green never had thatch, it did have a one and a half inch anaerobic black layer."

By the time Nick approached us and offered his expertise, we were ready to try something new.

Penovich attacked the problem by doing what he always does when evaluating a green, lawn or landscape. He went deep. While making cursory notes of potential nutrient deficiencies that may be

underlying the visual symptoms, for instance, Pink Snow Mold is linked to low nitrogen uptake; Penovich wanted a more conclusive understanding of the soil's health. The testing center that he uses to obtain that information offers more than just a brief overview of missing macro and micronutrients. It evaluates a range of nutrients, as well as humus content.

Yet, even replacing those is not enough, not to really improve soil health. Penovich came to this conclusion many years ago. Mutchler's maintenance crew, for instance, had been fertilizing the troubled green season after season with no significant improvement. Penovich discovered that to really heal a soil, you must view it as the living substance that it is. You must view all the organisms that thrive in a healthy soil as essential to that health.

This is where Penovich's version of compost tea has evolved the most. While to some compost tea may be this mysterious brew of unknown origin filled with an even more unknown content, the make up of Penovich's



Photo of a residence before *The Lawn Jockey* began work.



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brew is not unknown. He knows exactly what goes into it – the nutrients and microorganisms that a healthy soil and the plants that live in it most need to survive and thrive. He works with Dr. Michael Holmes, an Oregon State University graduate and research scientist. Dr. Holmes has isolated specific groups of organisms, including plant growth promoting rhizobacteria (pgpr) and entomopathogenic fungi, through standard techniques and DNA analysis and has been able through research to determine that they are essential to plant and soil health.

He determined that the addition of these isolated microorganisms to a soil had a direct increase in plant root mass; surface area for absorption; and plant availability of key nutrients. They also act by stimulating a plant's immune system enabling it to withstand disease. The qualities that growers most want – size, color, storability, sweetness – are all improved upon addition to the soil of these microorganisms.

He explains that these biological organisms can allow you to be "very specific and very targeted" in your approach to a soil health problem. These isolates have specific functions. In the spring, for instance, pgpr's (Dr. Holmes calls them) will promote root growth. In the summer, they will push crop vigor and help plants deal with heat stress and water management. In the fall, 'digesters' can be used to manage crop residue and toxic chemical carryover.

These digesters carry great promise in reclaiming damaged soils, one of the reasons why Dr. Holmes is working with so many organic farmers. The dedicated scientist has even isolated organisms capable of breaking down toxic chemicals, including Class A pollutants.

Penovich particularly bursts with enthusiasm as he talks about all these possibilities and what they mean for his clients. Working as an exclusive distributor with Dr. Holmes, he offers a truly unique product with a guaranteed analysis.

He believed it had the capability of curing a problem as serious as that of Green #16. But, before he can start to brew, a process that involves combining a mixture of worm castings from the Pacific Northwest, a slowly matured, ancient humus from Alaska, rhizobacteria (or entomopathogenic fungi) from Dr. Holmes and other secret ingredients to make a proprietary blend that is flushed with thirty hours of oxygen for maximum multiplication of the microorganisms, he needs the results of the comprehensive soil test. He follows this with advice to the maintenance crew or homeowner to aerate the soil to twenty holes per square foot. In order for the microorganisms and the micronutrients to work they must be able to reach into the soil. As the rhizobacteria decomposes the existing organic matter releasing the nitrogen in a form that the plant can absorb, they will continue to move

deeper into the soil changing soil structure and health as they go.

The results are astonishing. The water holding capacity of the soil changes, improving drainage and aiding in plant growth. Green #16 has never looked so good.

"I am looking forward to working with Nick more," a satisfied Scott Mutchler stated. "What he did made a night and day difference. In the past, after a storm there would be standing water for days, now it is gone in a matter of hours. In fact, all through the winter, the turf had no standing water and we had no problems with disease. Definitely an improvement!"

As the referrals from Mutchler add up, Penovich fields some from Dr. Olaf Ribeiro, a consulting arborist based on Bainbridge Island, who shares Penovich's commitment to and passion for organic plant care. After Dr. Ribeiro identifies the causal agent/s affecting a tree's ill health and brings about the cure, he passes along Penovich's name to the homeowner to heal the rest of the landscape. It's work that brings both men great joy.

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