

Soil Foodweb Insights

August 2010



This Month

In this issue we're interviewing James Sottilo, a successful landscape manager working out of New York who has done extensive work on some large park projects. Act fast and you can still register for the workshops happening next week, August 16-19! Registration forms are available at <http://www.soilfoodweb.com/calendar.html>. Questions? Call David at Sustainable Studies Institute: 541-257-2614, or send email to info@sustainablestudies.org. Soil testing is also highlighted in this newsletter. We're excited to be able to offer a small discount for anybody interested in testing so please keep an eye out for that as well.

Brooklyn Bridge Park Uses Compost Tea

By Bob Rost

Lower Manhattan in the Big Apple is the backdrop to a fascinating compost tea success story—Brooklyn Bridge Park.

According to James Sottilo, owner/operator of Ecological Landscape Management, compost tea is a key ingredient in establishment and maintenance of all the plants, including turf, shrubs and trees, growing in this unique and beautiful new park built on concrete piers out over the East River.

The concrete piers were formerly used for loading-unloading merchant ships. The park conversion began in 2009 when warehouse structures on the piers were cleared away and clean fill material was brought in from a nearby transportation-tunneling project for construction of a landform base.

Soil profiles for turf areas, shrub and flowerbeds, tree plantings and other park use areas were

then constructed over the landform base.

"Soil scientists and design engineers wrote specifications for the 60,000 square yards of topsoil used in the project according to the planned uses of the areas where the soil profiles would be constructed," said Sottilo.

"Their goals were to design soils for the park from a physical use point of view," he added. "The role of Ecological Landscape Management was to design a plan for maintenance of those soils from a biological point of view."

Sustainability was a driving force in the project from the start, Sottilo said. The park designers required that no pesticides or nitrogen from fertilizers would be allowed to leach through park soils into the river, he added.

Our approach was to use nutrient cycling in the soil to manage and enhance plant growth without the use of pesticides and fertilizers, he said. Sottilo's company used compost and compost tea to jumpstart and maintain a high level of nutrient cycling in park soils to support healthy and robust turf grasses, shrubs and trees.



Turf at Brooklyn Bridge Park after weeks of hot weather and 8000 attendees for movie night.

Edited by Michael Rost
Designed by Adam Lindsley
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This approach is working beautifully so far. See brooklynbridgepark.org to view photos of the park landscape. Phase 1 of the park project was completed in April 2010. Additional phases of the park project will be completed over the next few years.

Water conservation was another important factor in the park's design. Park management plans call for the capture and storage of storm water runoff that will supply over 70 percent of the park's irrigation needs. The use of compost tea in the park helped in this area as well.

Soil nutrient cycling helped park plantings achieve significant root development (up to 8 inches for many types of plants) in a month's time, Sottilo explained. This provides the added benefit of allowing plants to make more efficient use of moisture in the soil, he said.

Sottilo emphasized the importance of blending compost tea with the right balance of components, including fungi, bacteria, protozoa and nematodes, to achieve the needed level of soil nutrient cycling. That's where Soil Foodweb was a great help to us, he said.

"Soil Foodweb Inc. provided the soil testing analysis support and the benchmark data generated from soil testing that enabled us to produce compost tea with the balance of components tailored for the microbiology and nutrient cycling needs of the various soils throughout the park," Sottilo said. "The benchmark soil test data tells you where you are with various soils you work with and allows you to tailor your materials accordingly."

Sottilo, a landscape management specialist and IPM (Integrated Pest Management) expert, noted that he has been using compost tea in his work since the late 1990s.

"I became interested in the concept of soil



Root development of sod 4 weeks after installation.

nutrient cycling when I first heard Dr. Elaine Ingham speak at a tree care conference at UCLA in the mid-1990s," he said. "Given the trend towards sustainability in the industry now, I see soil nutrient cycling being a key part of that."

Sottilo's company is located in the New York City area.

"Our business is multi-faceted," said Sottilo. "We do specification writing for landscape architects and designers for soils in new landscapes, and we do a lot of work with public parks and universities helping them move over to more sustainable and organic methods of managing their grounds.

"We also do a lot of estate and residential management of lawns, trees, shrubs, in a sustainable way, and consulting on various large scale landscape projects and restorations," he said.

Ecological Landscape Management has a long list of clients in New York, Boston and throughout the northeastern U.S., including the Rose Fitzgerald Kennedy Greenway in Boston, the High Line, a park established on what was an elevated railway in downtown New York City, Harvard University, the University of Pennsylvania and many others. ■

Soil Foodweb Oregon testing

The first step to understanding what is going on in your soil will always be testing. In order to better understand what activity is happening and where deficiencies might exist, testing is crucial. You can start utilizing sustainable methods at any time and will benefit from it, but to maximize the potential of your soil you need to know what is working and what isn't. Crops, soil types, climate types, and existing ecological systems are just a few variables when attempting to decide what is best for your soil. Biological testing at Soil Foodweb Oregon includes:

Dry weight analysis: Determining your soil's water holding capability as well as efficiency of the soil structure.

Total and active bacteria/fungi: Measure of the total bacteria and fungi in your soil as well as the bacteria/fungi that are biologically active in your soil. Active bacteria/fungi counts are a crucial part in determining the health of your soil. These microorganisms indicate your soil has adequate nutrient cycling. The ratio of their numbers also have a major impact on a specific plant trying to be cultivated. Bacteria and fungi are the organisms that interact the most with plants and their roots. Knowing more about them will go a long way towards understanding more about your soil.

Protozoa counts: Soil Foodweb Oregon (SFO) tests for protozoa by determining what protozoa live in your soil and the size of their populations. Protozoa are another key part in the process of nutrient cycling. We test specifically for three types: flagellates, amoebae and ciliates. The ratio and size of their populations indicate different scenarios in your soil. For example, high concentrations of ciliates in your soil indicate anaerobic conditions.

Nematode counts and identification: Nematodes are larger organisms that live in the soil. They are yet another part of the foodweb that cycles nutrients. We can identify nematodes to genus which greatly helps in figuring out whether you have beneficial or harmful nematodes. Knowing if you have bacterial or predatory nematodes (beneficial) as opposed to root-feeding nematodes (harmful) will give you a clearer picture of how to approach your soil.

These tests are aimed at analyzing and identifying the biology at work in your soil. To pursue a biological approach to growing you must first understand the biology that exists and what you can do for it. SFO also performs a myriad of other tests for soil. For more information about all the tests we perform, please visit www.oregonfoodweb.com.

California DPR attempting to classify worm castings as pesticide

California Vermiculture owner and Wormgold producer George Hahn has been targeted by the California Department of Pesticide Regulation. The department wants to define Wormgold worm castings as a pesticide based on claims made about the product, as well as fine Mr. Hahn \$110,000 [or more if he tries to fight in court]. This case could potentially set a precedent for the DPR to classify *anything* that might kill insects as a pesticide. Bugs can drown in water, after all...

Read the original story here:

http://thecoastnews.com/view/full_story/8837676/article-COMMUNITY-COMMENTARY---Worm-poop-versus-the-bureaucracy

Soil Foodweb Workshops, August 16-19

Workshop registration is still open, so act fast! Introduction starts Monday, but the class runs all week and you can sign up for any day of the workshop. Check out <http://www.soilfoodweb.com/calendar.html> or call David at (541)257-2615.

Soil Foodweb Workshops, October 11-15

Registration will begin later this month for Soil Foodweb workshop in October from the 11th to the 15th. It will be a full 5 day workshop held in Corvallis, OR. Dr. Elaine Ingham will be presenting the introduction to the soil foodweb for the first part of the week and SFO director Matt Slaughter will be presenting compost and compost tea technologies. A microscope instructional class will end the week. Details are still being developed and we will have more information for you soon! Be sure to check www.soilfoodweb.com for updates. ■

Soil Foodweb Oregon testing discount

First time tester? Now is a great chance to start! Soil Foodweb Oregon is offering \$10 off a full foodweb analysis for your soil sample!



\$10 off 1 Full Soil Foodweb Test

Coupon redeemable for \$10.00 off a single \$120 Soil or Amendment Foodweb testing. Test includes: Total and active fungi/bacteria, Protozoa counts, Nematode numbers and identification, Dry weight analysis, 15 minute consultation with a Soil Foodweb Oregon consultant.

Applies only to soil and compost testing. Coupon must be included with submission form. Offer expires September 15, 2010. Limit 1 per customer.



The full foodweb test is a great starting place for you to identify what biology you have and what it might be needing. Full foodweb testing is also useful for continued analysis of the status of your soil. This test will give you the best picture of your soil foodweb! Make sure to test soon, this offer is available for a limited time only!

Check <http://www.oregonfoodweb.com/testing.html> for info and submission forms. Submission forms are required for us to get the quickest, most accurate information about your sample. We want to ensure that your data is entered in correctly, and the best way to do that is to provide us with the details about your soil and your growing practices.

Need a submission form for testing? Go to <http://www.oregonfoodweb.com/assets/docs/FoodwebBiologyOrderFormJuly12.pdf> to download and print the .pdf to include with your sample. ■

That's all for now. Next month we will have an interview with Soil Foodweb Inc. founder Dr. Elaine Ingham. Earthfort will also have a unique offering that should excite compost tea enthusiasts everywhere! From everybody here at Soil Foodweb Oregon, happy sustainable growing! ■ ■ ■