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ORGANIC SOILS:

# science vs. skeptics

Some contractors believe landscape's future starts with better soils. See how this is changing the way we look at the business

By Jamie J. Gooch / Contributing Editor

**Y**ou may treat your clients' soil like any old dirt — but Hendrikus Schraven doesn't. Schraven treats soil with great respect, almost a reverence for the world of living organisms it contains. He believes that good design cannot be achieved without good soil; in fact, he has staked three companies on it.

Hendrikus Schraven Landscape Construction and Design, Issaquah, WA, founded in 1974, has spawned two other companies — Soil Dynamics, which researches and markets organic soils, and Hendrikus Schraven Organics, which sells a line of organic fertilizers and amendments.

"Soil is the foundation for successful landscape contracting," says Julian Durant, project coordinator for Hendrikus Schraven Landscape Construction and Design. "Plants and structures are important, but soil is the foundation. Soil is the medium in which water, air and plants come together."

Durant says good soil can have a number of positive effects on a landscape:

- Erosion control
- Accelerated root and plant growth
- Lower maintenance costs
- Lower plant mortality
- A means of water purification

Many people overlook the biological element of soil, he says. "Microbes have a strong effect on the soil in terms of infiltration, drainage and water absorption," Durant says. "We need to appreciate the significance of the 'very tiny.'"

### Selling sustainability

It's one thing to appreciate microbes and sustainability, and another thing to sell it. Think it's hard to convince clients of the value of a professional landscape? Try convincing them they need two feet of new soil, or a load of earthworms shipped in, or an ionization system for a hot tub, instead of chlorine.

"We communicate a cost-benefit analysis to potential clients," Durant says. "When we explain the short- and long-term benefits of sustainability, plus the companion costs of traditional landscape design/build, many people go for it."

As for specific benefits, Durant says clients have saved up to 70% on irrigation costs after an initial investment of 18 in. to 2 ft. of good soil, proper drainage and correct plant placement. And, he says, many of the firm's clients only need to fertilize once or twice a year. Lower plant mortality also saves time and money in the long run.

### What about maintenance?

If you're thinking Schraven's techniques could cut down on maintenance and associated revenues, you're right. Like many landscape design/build firms, Durant's company provides maintenance services. He says they have replaced fertilizer and irrigation service calls with pruning, pond cleaning and planting and removing seasonal flowers. Hendrikus Schraven Landscape Construction and Design is also able to support more clients with its 19 employees by keeping maintenance visits to a minimum.

The company's unusual approach may raise the suspicion of some, but Durant rises to the challenge.



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“We deal with credibility by respecting the old and accepting the new,” he says. “We pursue our intuition about what is good for the property, but back it up with science and examples. It’s not snake oil if it’s been working in the field for 10 years.”

Schraven’s company has garnered more than 55 awards and is no longer viewed with the skepticism it once was.

### “Tea time” soil model

The essence of Schraven’s model is to create or install a thick layer of healthy soil, put the right plants in the right places and maintain it with a “compost tea” of microorganisms and organic fertilizers that include micronutrients.

While there are more details, including the scientific aspects of which microorganisms do what, Durant says they try not to get too blinded by science. “It’s easy to get so embroiled in the science of it that you can’t see the forest for the trees,” he says. “We test our soils in a lab, for example, but we have also learned how to feel it and smell it to tell whether it’s good soil.”

Durant says they determine the need for new soil on a case-by-case basis. Some small urban plots, for instance, need their soil replaced. Other plots are just too large to justify the cost of soil replacement.

Perhaps the greatest challenge to Schraven’s sustainability model is widespread acceptance.

To get the word out, company representatives grant speaking engagement requests and are active in consulting. The company also licenses its soil products to landscape professionals in other states.

“Our goal is to revolutionize the way profes-



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**1 BEFORE:** Schraven’s EssentialSoil stockpiled on a waterfront project. No siltation fence was necessary.

**2 INSTALLATION:** EssentialSoil was installed using a flexible drop tube. The soil will flow through conventional hoppers unaided at rates up to 200 yds. per hour.

**3 AFTER:** The organic soil was used as one-step process for erosion control, sustainable organic turf and irrigation reduction.

**4 ROOT GROWTH:** These roots grew in 14 weeks in EssentialSoil. Roots zones like these are the key to sustainable, healthy, organic plant and turf systems. These turf root zones have reduced irrigation rates up to 70%.



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sionals relate to soil,” Durant says. “The mountain will be moved.”

For more information on Hendrikus Schraven Landscape Construction and Design, contact them at 206-322-8977 or visit [www.hendrikus.com](http://www.hendrikus.com). ■

## The ecology of soil

There is a cycle of life in every environment, says Julian Durant, project coordinator at Hendrikus Schraven Landscape Construction and Design. Learning how each phase of the cycle influences the other is the key. In soil, that ecology includes:

### Physical

- Gravel
- Clay
- Silt
- Sand, etc.

### Chemical

- Nitrogen
- Phosphorous
- Potassium
- Other macro and micronutrients

### Biological

- Bacteria
- Protozoa
- Nematodes
- Fungi, etc.