

The World Garden of Hendrikus Schraven

by *July Hayes, Garden Designer*

Standing in the serene courtyard of his client's home, under an impressive Japanese maple with multiple trunks spread out like a fan, Hendrikus Schraven talks about his world view. He explains it in terms of soil bacteria and microthizae, the tiniest of living organisms. "If microorganisms that live in the soil did not do their job of helping plants get necessary nutrients, animal life and human beings could not survive. In just the same way, if the microbes that live on the surface of our skins could somehow be removed, we could no longer live either. All living things need each other to continue living."

As gardeners know, good soil is full of life. As we grub about in the dirt, we observe that the best plant growth takes place where the soil is soft, moist, full of humus (decomposed organic matter) and earthworms. When we try to plant in compacted or sandy soil, plants grow slowly and tend to lose their lower leaves. We have been told that the difference between rich soil and poor soil is a difference in humus content.

This explanation, while true, only scratches the surface. Hendrikus explains that humus supports soil bacteria and fungi (microthizae), which actually coat the roots of plants and make nutrients available to them. Soil bacteria and microthizae are eaten by larger but still microscopic organisms like nematodes and protozoa, which are then consumed by earthworms. The earthworm, then, is an indicator of how rich the soil is in the basic little life forms upon which all the rest of life depends.

This concept is called the soil foodweb. It has been researched for many years by scientists, most prominently Dr. Elaine Ingham of Oregon State University. Hendrikus intuitively came to the same conclusions as Dr. Ingham about the living nature of the soil as a boy on his father's farm in Holland. These days,

Hendrikus often speaks at the same conferences as Dr. Ingham. In 1999, he traveled to China with a group of soil scientists to advise on the problem of large tracts of land that had become unproductive from over farming with chemical fertilizers. He says the soil was "dead," with virtually no soil foodweb. The prognosis for restoration was not good: "The Chinese felt they could not take this land out of production for even one year because of their huge population to feed."

To Hendrikus Schraven's mind, increasing the humus in the soil is only one part of the landscaper's task. He wants to make sure it has a healthy soil foodweb. To achieve this, he uses specially brewed compost tea, which he makes in four large truck-mounted brewers. It is sprayed on both new gardens which he installs and on gardens cared for by his maintenance company. The compost tea is made with large amounts of oxygen to ensure that the right kinds of microbes are in it. Another soil innovation, a soil mixture which stays put on steep slopes, has great potential too. Hendrikus has applied for a patent on what he calls "Essential Soil." It has been proven under 50-year rain-storm conditions in the lab, but more importantly it has been proven on slide disasters on clients' properties here in the Northwest. Hendrikus

Hendrikus Schraven, continued

has started another company to market this soil mix, which is blown onto the site with the compost tea mixed in as it leaves the barrel of the blower. In this way, the soil mix begins to function as a foodweb immediately.

Hendrikus' world view leads naturally to the belief that the Earth is a living being, and the soil layer is its skin. He is angered and distressed by the choices made by world leaders to wreak ecological havoc and use up natural resources for short-term gain. Understanding how quickly modern gardening and agricultural practices can destroy the soil foodweb, he fears the balance of nature will shift in ways that will ruin our lives. "Nature cannot be not balanced," he says in a thought provoking double negative. "Our disrespect for the earth will have consequences. If we believe there is a future for human beings, we must act on our belief and not simply talk about it. We would not spray herbicides and pesticides in our living rooms, and we should consider the whole world our living room."

Next month, July Hayes will write about the beautiful gardens Hendrikus creates. July is an experienced garden designer and can be reached at 206-240-6115.



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