



Our business is people and their love for trees®

## Creating the right soil for your trees

### Soil is the Key

When working with landscape trees and shrubs, the most important component of health is the soil. It is estimated that 80% of the problems related to landscape plantings originate with soil issues. Pest problems can also become a concern when stresses are invoked by poor soil. Because the soil is so important for the health and well being of your landscape trees and shrubs, The Care of Trees places a major focus on plant health care activities that affect the soil.

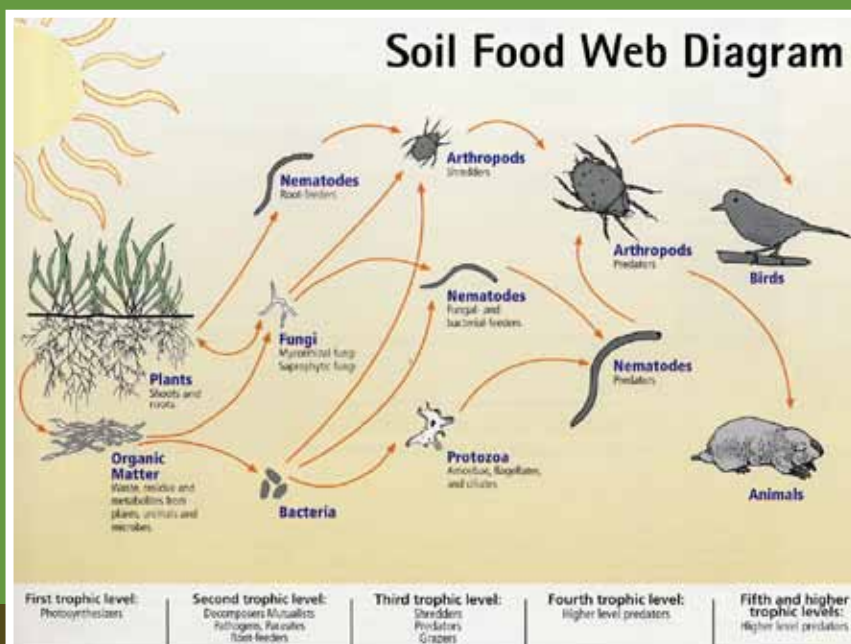
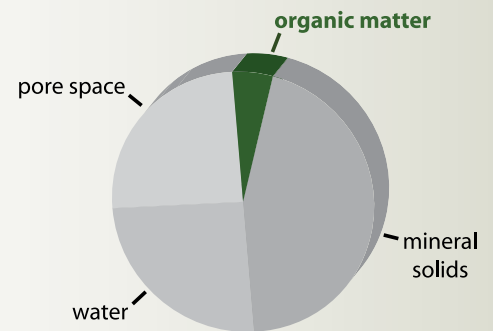
### Components of the Soil

When we examine the soil, we must consider three important properties: chemical, biological, and physical.

Traditional soil science focused on **chemical** soil properties, such as soil nutrient and pH levels. They were measured and then adjusted by adding synthetic fertilizers or other elements. More recently, we began looking at the **physical** soil components. The amount of solid matter versus air or pore space and the proportions of sand, silt and clay in the soil are very important. In addition, a healthy soil should have at least 5% organic matter. However, not much was known about the importance of this small percentage.

That crucial 5%, the **soil biology** (organic matter), has a huge impact on the overall health of our landscape plants. Different types of living organisms living within the organic matter interact with each other in the form of a food web.

## The “Ideal” Soil



Different ecosystems such as grass, deciduous trees, and coniferous trees, prefer a different mix of organisms, a different soil food web. This difference has occurred based on the type of vegetation present. Grass ecosystems, such as turf, form simpler food webs with fewer levels. Tree and shrub food webs are more complex than grass food webs. When our trees grow in a sea of lawn turf grasses, they must not only compete with the turf for water and nutrients, but must also function in a soil that is messed up biologically from what they would like.

## Making Corrections

We now have the ability to make changes in soil biology that can directly benefit our woody landscape plants. Before now, establishing a favorable soil biology required mulching trees with wood chips. While effective, many people did not wish to part with the turf that the mulch would replace.

Today, we have new techniques available that can shift soil food webs in a direction that woody plants find more desirable. This can be accomplished by using all natural techniques.

First, we test the soil to identify the amount and mixture of microorganisms present in the soil around your trees. Once we have this information, we develop a program for your property that will begin to change the soil food web to one more favorable to trees.

We do this with a series of site visits where we not only feed the desired species of soil microbes, but also introduce the proper mix of living organisms directly onto the root zone of your trees.

Using specially designed equipment, we mass produce the beneficial mixture of microbes favored by woody plants. These microbes are applied as a liquid either to the soil surface or injected into the soil. During other visits, we apply granular or liquid materials that serve as a source of food for the beneficial species of fungi present. Applying both the organisms and their food sources, we begin to change the soil biology toward one more favored by trees. Don't worry, the changes will not adversely affect the grass beneath the trees.

This is an ongoing process. If the treatments are not continued, the turf will ultimately change things back to the soil food web it prefers.

## Why Do This?

Trees form an association with their environment. By building upon the soil characteristics favored by trees, we will improve their health and minimize potential problems. By addressing the chemical, physical, and biological components of the soil together, we will provide a better environment for our trees than by working with only one component.

Think of it in terms of our own health. Antibiotics are only one component of a health care program. We must also consider exercise, diet, rest, and stress management as well. By developing a program that address all the soil components, we can provide the most favorable environment possible.

For more information or to discuss your tree care needs with an arborist from The Care of Trees, please call your local office or visit our website at [www.thecareoftrees.com](http://www.thecareoftrees.com).



**Call your local office today to schedule an appointment!**