

# What is a Healthy Soil?

A healthy soil means:

- ✓ The **soil organisms**, the soil food web that cycles nutrients into the right forms at the right rates, **are present**.
- ✓ The **organisms that suppress** disease-causing organisms are present.
- ✓ The **organisms that build** soil structure are present, so mineral nutrients and gases (oxygen) can move to the plants easily, and waste materials can be removed as rapidly as possible.
- ✓ The **organisms that degrade** toxic materials are also present.
- ✓ The **organisms that produce** plant-growth-promoting hormones and chemicals are present and improve plant growth.
- ✓ **Soil chemistry is right for the plant.**

Soil pH is only a *very general indicator* of "rightness", since most plants do just fine in a wide range of a pH.

The right amount of calcium, iron, phosphorus, sulfur, and so forth must be present, and must be presented to the plant in the right amounts at the right times. If all the Ca is complexed in forms the plant can't use, the plant will suffer, and generally succumbs to disease because it is too stressed to resist the disease.

If soil chemistry and soil biology are right, soil will have the right structure - in other words, soil physics will be just fine.

Aren't soil organisms present in the soil all the time? The answer to that is a resounding NO! Disturbances (freeze, thaw, wet, dry, fire, and compaction) can kill critical organisms in the soil. Natural disturbances as well as human disturbances can kill these organisms. We need to learn what those situations are and how to encourage and select for the presence of the appropriate organisms to grow the plants we want to grow.

- ✓ **Salt is an important factor** - not too much and not too little. The Goldilocks Principle - *just right!*

This information provided by:



**A1 Organics**

16350 WCR 76, Eaton, CO 80615

*Organic recycling and commercial  
composting for nearly three decades.*