

# What Do Armillaria, Chlorosis, And Canker Have In Common?



*“A plant can be no healthier than the soil in which it grows”*

OR *“Sick plants grow in unhealthy soil”*

A tree, shrubs, turf grass, vegetables - all plants get the nutrients they need to be healthy from the soil. If the nutrients they need are not in the soil, plants are stressed, sick, and by definition, in decline.

There are biological and chemical interactions within the soil that make nutrients available to plants. If biology is absent or the chemicals are out of balance, nutrient uptake is impaired.

In Nature, plants tend to grow where they are most suited and nature has a way of resupplying the plant with the biology, chemistry or nutrients that are used in the plant's growing process. When a plant is removed from its natural habitat and planted in “foreign” soil, the plant is immediately at risk - not because of the plant, but because of the soil.

*“The soil's job is to supply life to the plant”*



## The Soil

## Why A Soil Care Program

- In addition to being more beautiful, healthy plants require less work (expense) to maintain.
- Since plants can only be as healthy as the soil they grow in, it logically follows that understanding and caring for the soil should be the first step in any PHC program.
- Customers (current & potential) want less chemicals used on their properties.

### Soil Care Program Basics

- **Soil Test ~**
  - must be a nutrient availability test
  - should include specific recommendations
  - recommendations should be adjusted for actual soil type
  - target goals should be plant specific
- **Correct pH ~**
  - soil pH should be adjusted for the specific plants growing there
  - proper soil pH will help establish the biological community needed for the specific plants growing there
- **Correct Soil Compaction ~**
  - all living systems require oxygen. This includes root systems & biological systems
  - proper exchange of air and water are critical
- **Establish Biological Communities ~**
  - once the soil profile is modified to support the plant and the corresponding biological communities, additional biology can be added to enhance or balance existing biology and/or replace missing biological systems.
- **Nourishment ~**
  - as the proper pH makes more nutrients available within the soil, supplemental feeding can be reduced
  - as the biological communities become more established and function more proficiently, more nutrients become available to the plants
  - supplemental feedings should be made with materials that have a neutral pH (as near as possible), never contain muriate of potash and have low salt and chloride levels ensuring the least amount of damage to the soil and biology
  - supplemental feedings should be for the soil biology as well as the plants
- **Pest Management ~**
  - will be greatly reduced because the healthy soil and plants will resist many of the pest issues typically encountered
  - if control products must be used, select products with the least amount of harmful side effects both for the plant AND the soil . . . especially long term.