

Soil Foodweb Sustainable Studies Institute Workshops

Dr. Elaine Ingham has developed three in-depth workshops at her Soil Foodweb, Inc. Laboratory. Now taught through the Sustainable Studies Institute in Corvallis, Oregon, the courses include classroom instruction, hands-on lab work, and field demonstrations.

- **Introduction to the Soil Foodweb** – 2 days
- **Compost Technology** – 1 day
- **Compost Tea Technology** – 1 day

Introduction to the Soil Foodweb *Elaine Ingham, PhD*

Two Days (8:00 am to 5:00 pm)

What is Biological Farming? Examples

Soil Foodweb Principles

- Productivity versus Foodweb Complexity
- Methods
- How-to-do-it Example
- Biology, Chemistry, Compost, Compost Tea

The Soil Foodweb: Myths, Roots, Compaction, Calcium

Energy

Disease Suppression

Nutrient Retention including C:N

Foodweb Picture

Nutrient Cycling

- N Cycle
- What form of nutrient do plants need?
- How much N, P, K, Mg, S, B do plants need?

Soil Structure – Who builds which parts?

Complexity revisited

Succession

Disturbance

Microscope Demonstrations

System-by-System Approaches

- Grasslands
- Crops
- Vines
- Orchards

Sampling

Data Needed to fix things biologically

Compost Technology

Prerequisite: Introduction to Soil Foodweb Workshop or Equivalent

One Day (8:00 am to 5:00 pm)

Review of Important Soil Foodweb Concepts

- The right organisms for the plant desired
- The right food for the plant desired

Making Thermal Compost: Important Parameters

- Starting materials, temperature, aeration, turning and particle size
- Commercial recipes approach
- Small scale approach

Soil Foodweb Sustainable Studies Institute Workshops

- Home owner approach

The Important Parameters in Making:

- Worm Compost
- In-Vessel Composting
- Static Composting

Definition of Good Compost

- Immature versus mature compost
- Stability
- Compost standards

How to Determine Whether Soil Needs Compost

- Rates of decomposition, smell, color
- When to do organism assays and which assays to run
- Does your soil have the right organisms in the right numbers?

Field Approach: Vegetables, Lawns, Orchards, Vineyards

Field Approach: Thermal and Worm Compost Farms

Compost Tea Technology

Prerequisites: Introduction to Soil Foodweb Workshop; Compost Technology Workshop

One Day (8:00 am to 5:00 pm)

Definition of Good Tea

- Maturity, stability, E. Coli, Standards
- Aerated Compost Tea versus Not-Aerated Tea
- Plant Tea, etc.

Making Compost Tea: Essential Components

- The brewing cycle, the right compost, extraction, aeration, water source, recipes, growing fungi, E. coli issues
- Recipes

The Important Parameters in Testing Compost Tea

Determining Whether Plants Need Compost Tea

- Rates of decomposition, smell, color
- When to do organism assays, which assays to run
- Does your foliage have enough of the right organisms?

Altering the Foodweb in Soil & on Plant Surfaces

- The right organisms for the plant desired
- Bacterial or fungal dominated tea?
- The right foods for the plant desired
- Commercial products

How to Use Compost Tea in a Successful Program

- Turf
- Landscape
- Orchard
- Row Crops/Vegetables

Microscope Demonstration of Different Teas