



SOIL FOODWEB Institute

Soil Rehab Specialists Since 1986

Small Microscope Class

Time 9.00am – 4.30pm (usually on a Tuesday, or on a prearranged day).

Location SFI Laboratory, Lismore NSW.

Cost \$330.00 (incl GST), which includes the microscope manual.

Registration To register for the class, fill out the registration form attached and send with payment to SFI. Payment can be made by cheque, credit card or direct payment.

Program

These classes are for people wanting or needing instruction on what they see using their microscope. Please bring your own microscope along with you to use in the class.

- **We will go through Kohler illumination** and get everyone to be able to maximise the amount of light their microscope can focus on the sample.

- **Shadowing techniques.** This is critical. The microscopes we have at SFI use DIC, which is a shadowing technique, and allows you to clearly see things that have the same refractive index as water. Phase contrast methods fail because of that little problem. So, with your inexpensive compound scopes, we will help you do what you can to mimic the kind of clarity we get with SFI scopes.

- **We will look at examples** of the many different organisms you will be seeing in teas. We will do compost prep as well, so you can see why these microscopes don't work really well with compost.

- **We will see** different kinds of bacteria, fungi, protozoa, and nematodes.

You cannot ID the cells you see to the species level. Often not even to genus. You can however, get an idea of how much the KINDS of bacteria or fungi or protozoa, etc. are changing in your tea. You can monitor your tea brew hourly if you want to see the changes in organisms as the tea matures.

- **We will help you see when your tea is “ready”.** We will help you learn the cues you need to develop for your own system, to know whether the tea is growing enough of the right organisms.

- **We will teach you how to tell if your tea is “ready”.** If you don't have the biology you need, you should brew longer, or add some foods, or even add more compost.

- **We will go through the qualitative method** for determining tea with adequate or even outstanding organism biomass, or determining “bad” tea, lacking in the proper set, or kinds, of organisms. We’ll go through some ideas for “fixing” bad tea. Sometimes, you just should throw it on some weeds, because it would be nice to kill them. Sometimes, you can add more compost, or more foods, and bring the tea up to par. We will go over how you know those situations. **You need** a microscope with 4X, 10X, and 40X objective lenses. 10X eyepieces.

Microscope suppliers: David von Pein - 07 4635 7065. www.themeterman.com.au
Gerhard Grasser – Agrisolutions: 03 56278663. www.agriculturalsolutions.com.au