

# MAKING MORE WITH MICROBES SOIL MICROBIOLOGY FOR REGENERATIVE AGRICULTURE

INSTRUCTOR: **DOUG WEATHERBEE** 

## JUNE 13-17, 2011 SAN MIGUEL DE ALLENDE, GTO., MEXICO



Doug Weatherbee is a Certified Soil Foodweb Advisor and owner of SoilDoctor.org. Consulting with small, medium and large scale farms and ranches in Latin America and the United States; he uses an applied soil microbiological (eco) systems approach to transform soils degraded by industrial chemical agriculture and even conventional organic farming, into regenerative microbiological agricultural systems. You will learn how to enhance and nurture soil microbiological ecosystems for agricultural and growing benefits and possible climate change mitigation results.

#### **CLASSROOM AND ON-SITE FIELD TRAINING**

Whether you are a cattle rancher, small, medium or large scale farmer, this seminar will help you unearth the potential of your land. You'll learn valuable tools and techniques to help you turn your soil into rich and fertile ground through composting, creating composting tea, and by gaining a better understanding of the basics of soil microbiology.



Control non-treated organic



Microbiological treated organic





#### DAY 1

- Soil Microbiological case studies
- · Soil: Sand, silt, clay and humus
- Soil: Microbiological soil food web
- Plant Diseases and Pathogens: It's a numbers game
- Ecosystem Succession: Why does soil microbiology matter to our plants?
- Review So Far: SoilDoctor soil care take-home principles.

#### DAY 2

- Compost Type Introduction: Thermophilic, static and vermicomposting
- Carbon: Nitrogen ratio of compost inputs; bacterial or fungal dominated compost
- How to Make Thermophilic Compost
- How to make Static Compost
- Worm Power: Vermicomposting
- Review So Far: SoilDoctor soil care take-home principles
- Practical "Get Your Hands Dirty"

#### DAY 3

- Reversing Ecosystem Succession: Disturbances to the soil and its consequences
- Soil Compaction: The problem of no oxygen
- Microbiological Driven Nutrient Retention in the Soil
- Microbiological Driven Nutrient Availability for Our Plants
- Review So Far: SoilDoctor soil care take-home principles

### DAY 4

- Actively Aerated Compost Teas and Extracts
- Tea Brewer and Extractor Design Examples
- Compost Tea and Extract Application Equipment
- Compost Tea Application Rates and Times
- Practical "Get Your Hands Dirty"

#### DAY 5

- Soil Microbiology Lab Test: What it tells us
- Soil Chemical Test: What it doesn't tell us
- The Carbon Cycle and Soil: Green house gas emission, mitigation and sequestering
- Biogeochemical Nutrient Cycling
- What's a Typical Microbiological Growing Season Look Like?: Some project planning
- So how would this work in my ranch or farm?
- Qualitative Microscope Set-up, Usage, Sampling
- Microscope Identification of Soil Food Web Microbes

#### COST:

\$625/\$525 USD - Regular Tuition/Early Bird Tuition (paid by April 25) \$15 USD - 3 meals/day. \$10 USD - Dorm/night. \$5 USD - Camping/night with use of showers/bathroom.

Sign up early for the full month course stream and save \$600!!! (discount and free lodging)

Official registration at <u>www.iCATIS.org</u>
For more info, please contact: <u>informes@tierraycal.com</u>