



**S**oil is responsible for nearly all life on the planet but rarely gets the respect it deserves.

Today, however, this living and life-giving resource is finally getting its day - across the globe. In 2002, the International Union of Soil Sciences (IUSS), made a resolution proposing December 5 as World Soil Day. This day is designated to celebrate the importance of soil and its vital contributions to human health and safety.

Under the framework of the Global Soil Partnership, the Food and Agriculture Organization of the United Nations is celebrating World Soil Day 2013 in Rome today. The goal is to raise awareness of the importance of healthy soils for food security, ecosystem functions, and sustainable development.

Soil provides ecosystem services critical for life: it acts as a water filter and a growing medium; provides habitat for billions of organisms, contributing to biodiversity; and supplies most of the antibiotics used to fight diseases. Humans use soil as a holding facility for solid waste, filter for wastewater, and foundation for our cities and towns. Soil is the basis of our agroecosystems which provide us with feed, fiber, food and fuel.

World Soil Day is a great opportunity to help raise awareness of the importance of healthy soils for food security, ecosystem functions and resilient farms. It serves as a reminder to all of us that we owe our existence to this precious resource.

***“To forget how to tend the soils is to forget ourselves”***

*- Mahatma Gandhi*

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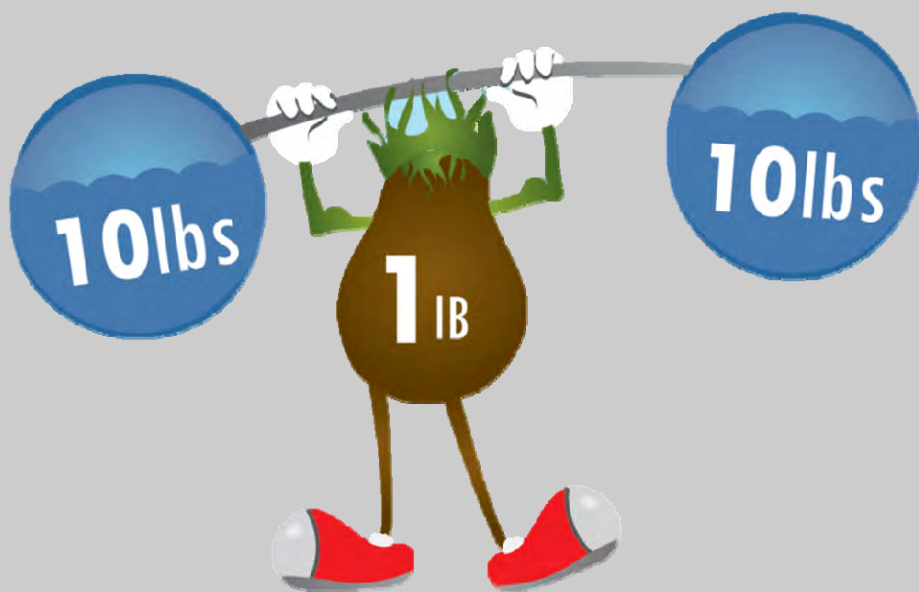
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YAP CAMPUS

# UNLOCK the secrets in the soil



## HEALTHY SOIL IS A HEAVYWEIGHT



Each pound of soil organic matter can hold 18-20 pounds of water. 1% of organic matter can hold 1 inch of water in the soil profile.



Every inch of a healthy soil contains its own little world of life, complete with millions of builders, decomposers, rivals, and partners.

Countless processes and functions occur every second to keep soils alive and productive. Those functions include filtering and buffering con-

taminants, cycling nutrients, regulating water usage, providing habitat for microflora and fauna, and stabilizing soil into aggregates.



# KEEP IT HAPPY, KEEP IT COVERED



Soil should be covered all the time, preferably with living plants. Keeping the soil covered all the time makes perfect sense when you realize that healthy soils are full of life. The microorganisms living in the soil need food and cover to survive – just like other living creatures.

### **What is critical about soil health now?**

Improving soil health is key to long-term, sustainable agricultural production.

### **Soil health matters because:**

- ◆ Healthy soils are high-performing, productive soils.
- ◆ Healthy soils reduce production costs—and improve profits.
- ◆ Healthy soils protect natural resources on and off the farm.
- ◆ Healthy soils can reduce nutrient loading and sediment runoff, increase efficiencies, and sustain habitat.

### **What are the benefits of healthy soil?**

- ◆ Healthy soil holds more water (by binding it to

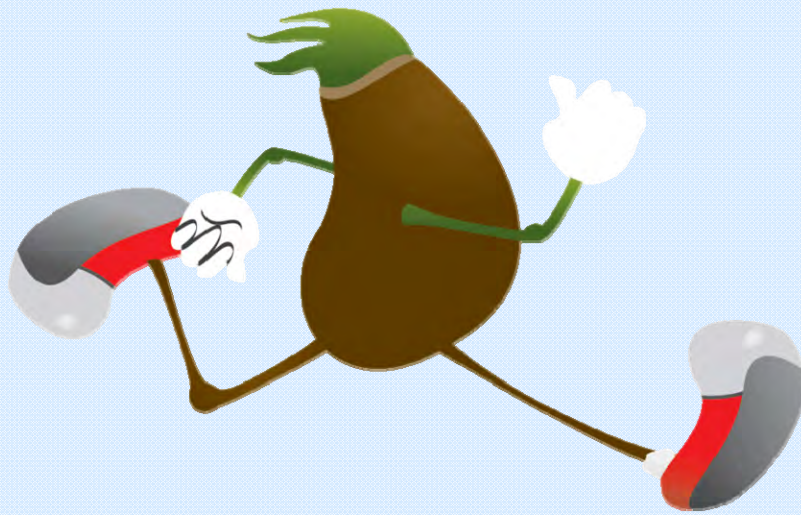
organic matter), and loses less water to runoff and evaporation.

- ◆ Organic matter (such as compost) builds as tillage declines and plants and residue cover the soil. Organic matter holds 18-20 times its weight in water and recycles nutrients for plants to use.
- ◆ One percent of organic matter in the top six inches of soil would hold approximately 27,000 gallons of water per acre (approximately three-fourth size of a football field)!

### **How to begin your path to Healthy Soils:**

- ◆ Keep it covered.
- ◆ Do not disturb.
- ◆ Use cover crops and rotation to feed soil.

# HEALTHY SOIL IS ACTIVE SOIL



Healthy soil should not be allowed to “rest” or to be fallow. Having plants to grow all the time to capture energy and feed microbial populations actually helps improve soil health.

### **Soil Trivia...**

- ◆ Did you know that there are more living individual organisms in a tablespoon of soil than there are people on the earth?
- ◆ Did you know that almost all of the antibiotics we take to help us fight infections were obtained from soil microorganisms?
- ◆ Did you know that soil is a nonrenewable natural resource?
- ◆ Did you know that the best china dishes are made from soil?

### **Want more soil secrets?**

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