

# unlock the secrets in the soil

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*"We know more about the movement of celestial bodies than about the soil underfoot."*

-Leonardo da Vinci



Living in the soil are plant roots, bacteria, fungi, protozoa, algae, mites, nematodes, worms, ants, maggots, insects and grubs, and larger animals.

## science of soil

soil is

made of about **45%** minerals  
**25%** water  
**5%** organic matter **25%** air



## what's underneath



Healthy soil has amazing water-retention capacity.

Every **1%** increase in organic matter results in as much as **25,000** gal of available soil water per acre.



One teaspoon of healthy soil contains

**100 million-1 billion** individual bacteria



All of the soil microbes in

**1 ac/ft** of soil weigh more than **2 cows**

Earthworm populations consume **2 tons** of dry matter per acre per year, partly digesting and mixing it with soil



## what it does



Healthy soil is key to feeding

**9 billion**  by **2050**