

Farming with Soil Biology

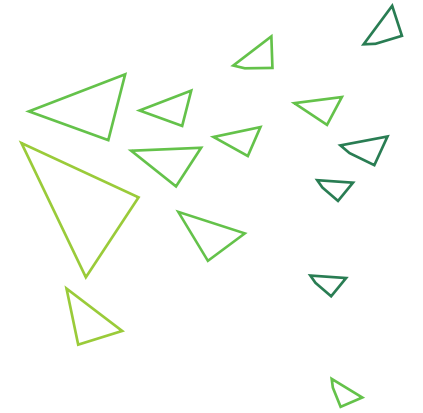
How to foster optimal soil health



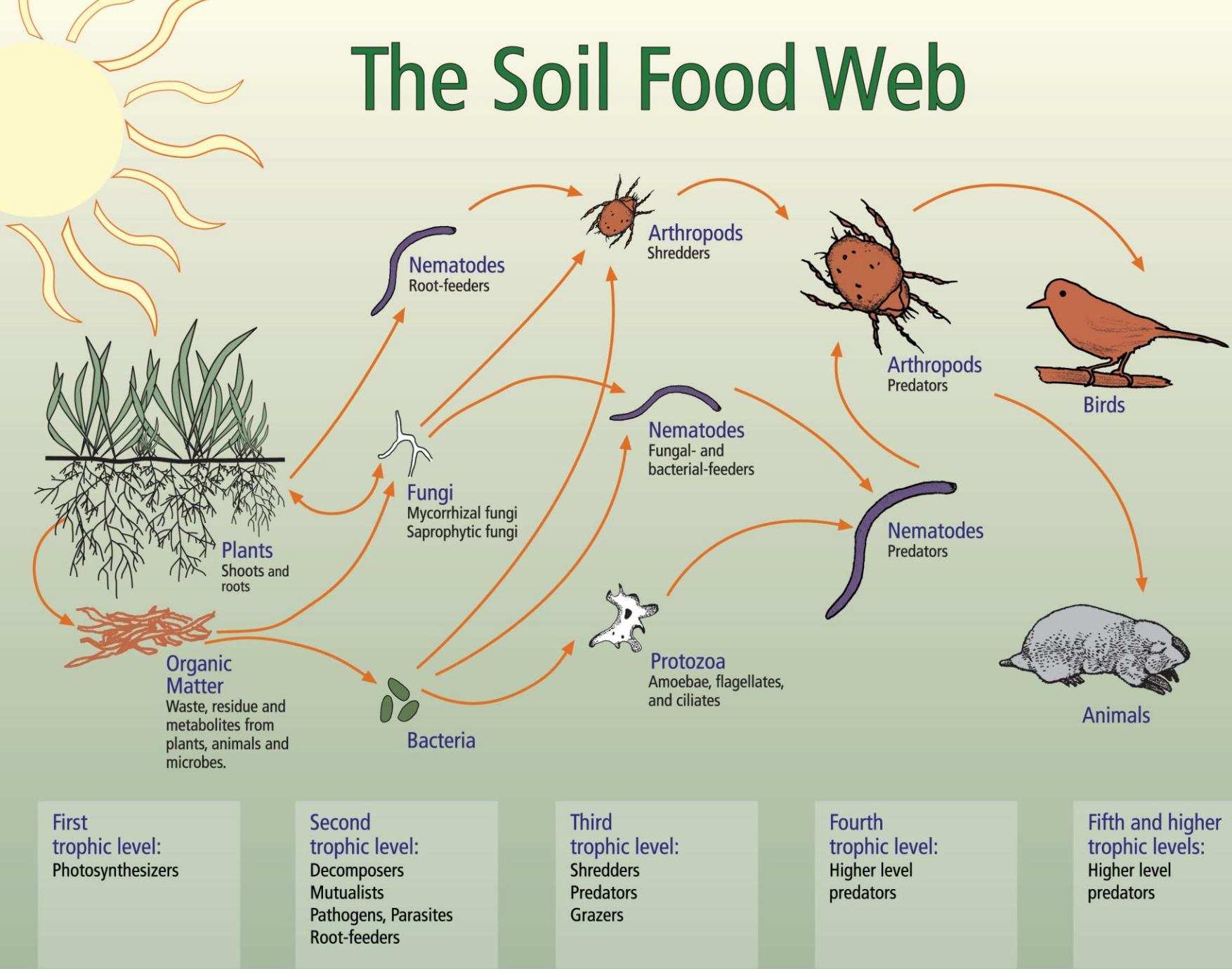


About Us:

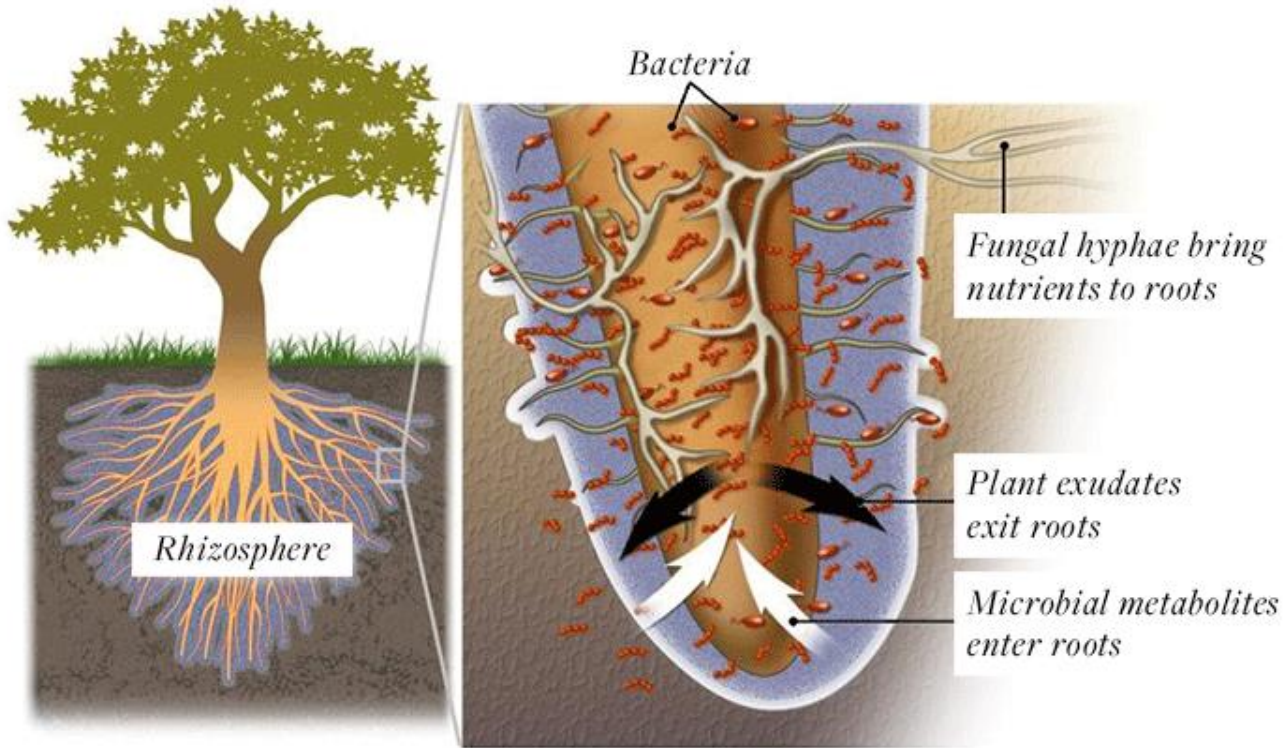
- Soil Food Web Consultant
- Soil Food Web School Mentor
- Work on small to large scale agriculture
- Assist in transitioning from conventional growing practices to growing with biology
- Based out of Northern California



Introduction to the Soil Food Web



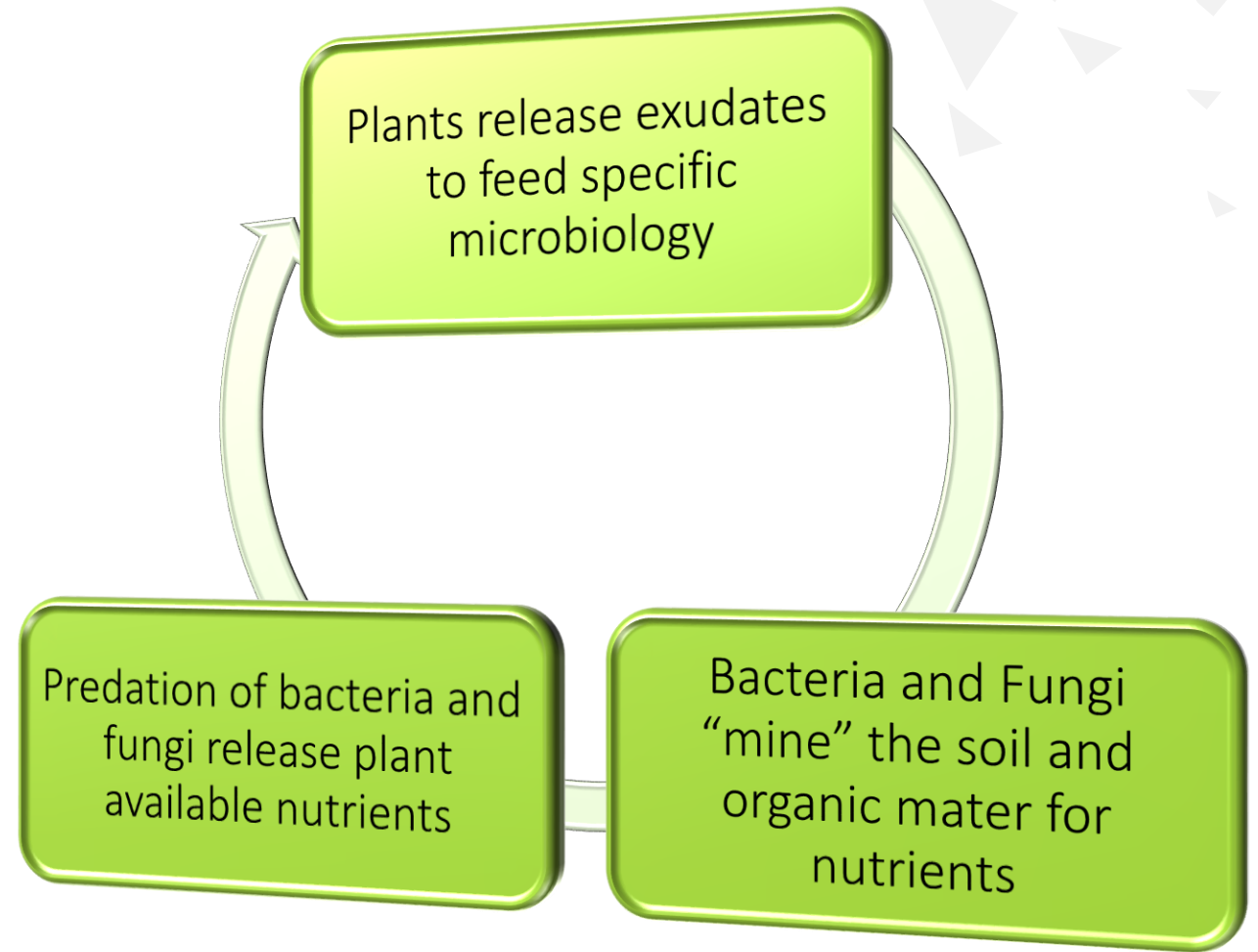
Plants Drive the Biology



- Plants have a controlling effect on the types and quantity of the soil biology
- Plants “feed” the biology
 - Exudates are made up of sugars, carbohydrates, and proteins
- A significant amount of energy is exerted to provide exudates to the soil

Nutrient Cycling

- Soil biology plays an essential role in nutrient cycling
- Nutrients are held up in the biology – they must be cycled to make available to the plant
- All of the soils in the world contain the necessary nutrients for plant life



Benefits of Farming with Biology

- Pest and disease control without using chemicals
 - Prevention
 - Stronger immune response from the plants
 - Can rely upon natural predators
- Many of the remediation techniques can use existing equipment
- Farm residues can be returned to the soil in the form of compost or mulch
- Improve soil structure: reduce compaction and increase water holding capacity
- ...



The Role of Compost

- Compost is the primary tool that is used to reintroduce beneficial soil microorganisms back into the soil.
- Compost that has a minimum amount of beneficial bacteria, fungi, protozoa, and nematodes is desired for biological farming practices. We call this compost Biologically Complete Compost.
- Biologically Complete Compost can be used in a variety of application practices: soil surface broadcast, nursery planting, and liquid amendments (compost extract & teas).



Making Biologically Complete Compost



- Thermophilic Composting is optimal for large scale compost.
- Proper management of time, temperature, and moisture is critical for development of beneficial microorganisms.
- Diversity of inputs equals diversity of the microorganisms.
- Storage of finished compost is important to maintaining good biological counts.

Thank You

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