Soil Food Web

- Bacteria
- Fungi
- Protozoa
- Nematodes
- Arthropods
- Earthworms
- Other (Algae, etc.) (i.e., important in nutrient cycling, building soil structure & healthy soils)

Carbon Dioxide (CO₂) is a byproduct of respiration

Oxygen is needed by roots & soil biota for respiration

Root Exudates (i.e., sugars) & Sloughed-off roots

The Soil Food Web is sustained by: Crop Residues, Root Exudates, Soil Biota (i.e., Predator-Prey interactions), Manure, Compost, Plant Symbiosis & Soil Humus.

Uptake of Soil Nutrients & Water by Roots & Soil Biota

- N
- P
- K
- S
- Ca
- Mg
- B
- Fe
- Mn
- Zn
- Cu
- Mg

Deep Percolation

Rain
Snow
Evaporation
Irrigation
Runoff

6CO₂ + 6H₂O → C₆H₁₂O₆ (sugar) + 6O₂ (oxygen)

Transpiration

Evaporation

Transpiration

Evaporation

Transpiration