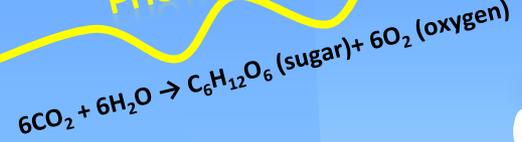


To achieve sustainability, it is important to use management practices that increase soil organic matter, reduce soil disturbance, and maintain a diverse plant community.

Keep the energy flowing through the soil agroecosystem

PHOTOSYNTHESIS

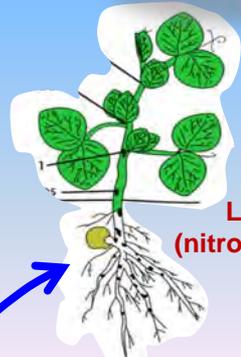


Harvest the Sun's energy through living plants (cash crops & cover crops)



Oxygen (O₂) is needed by Roots & Soil Biota for respiration.

Carbon Dioxide (CO₂) is a byproduct of respiration.

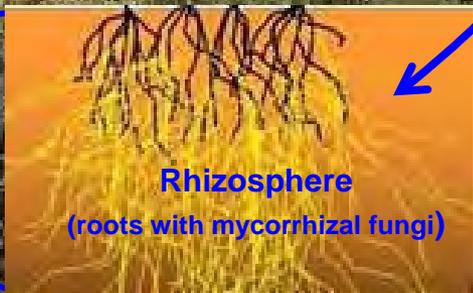


Legume (nitrogen-fixing)

PLANT SYMBIOSIS

Crop Residues (including the roots & mycorrhizae)

Soil Health



Rhizosphere

(roots with mycorrhizal fungi)



Compost



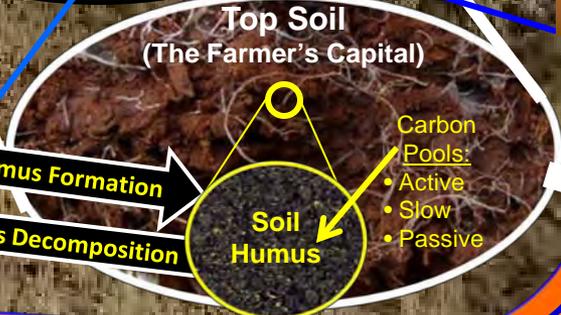
Manure

Decomposition

The soil food web is involved in nutrient cycling and the formation of water-stable soil aggregates.



Soil Food Web (SFW)
Soil Biota (predator-prey relationships)



Top Soil (The Farmer's Capital)

Humus Formation
Humus Decomposition

Soil Humus

- Carbon Pools:
- Active
 - Slow
 - Passive

Soluble Carbon

Root Exudates & Glomalin feed the SFW



Slake Test

Water-Stable Soil Aggregates