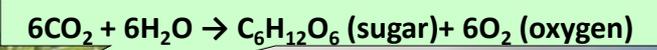


PHOTOSYNTHESIS



Carbon Dioxide (CO₂) is a byproduct of respiration

Oxygen is needed by roots & soil biota for respiration

Evaporation

Transpiration

Rain
Snow

Irrigation

runoff

CROP RESIDUES

Uptake of Soil Nutrients & Water by Roots & Soil Biota

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

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

Soil Humus

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.

Deep Percolation