



Humification

 Fungal dominance



Mineralization

 Bacterial dominance



Resting, rejuvenating phase of soil microbial activity



Active, workout-like mode for soil microbes



A slow, cool-temperature process



Occurs in warm soils



Digests lipids and woody crop residues



Rapidly metabolizes carbohydrates from root exudates/cover crops



Produces stable humic substances that degrade extremely slowly



Releases mineral components for crop growth



More reduced soil environment



More oxidative soil environment

Builds stable carbon that can be held in the soil for centuries.

Provides nutrients for growing crops, but doesn't build stable carbon.