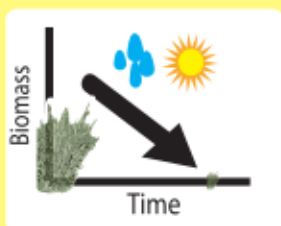


SUNNYSIDE OF DECOMPOSITION

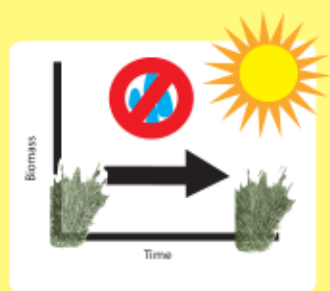
DECOMPOSITION



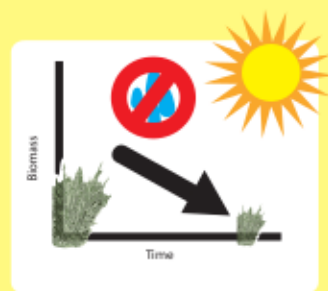
Water and temperature typically control rates of litter break down by microbes through a process called decomposition.

ARID SYSTEMS

- Lots of sunshine
- Not so much water
- Litter mass should not change
- Litter mass *actually* decreases



Expected



Actual



Sun emits powerful waves of energy as UV that can break complex chemical bonds found plant cell walls, but do these changes in cell wall chemistry = greater plant mass loss from biological decomposition?

EXPERIMENT

Phase 1



Treat plant litter to UV

Phase 2



Use chemical analysis to see chemical changes

Phase 3



Incubate litter with microbes to see if decomposition increases