

FIVE PRINCIPLES OF SOIL HEALTH

1. Cover on the soil

- Reduces water and wind erosion
- Decreases water evaporation
- Moderates soil temperatures
- Reduces impact of energy from raindrops
- Suppresses weed growth
- Habitat for surface dwellers (an important part of the soil food chain)



2. Minimise Soil Disturbance

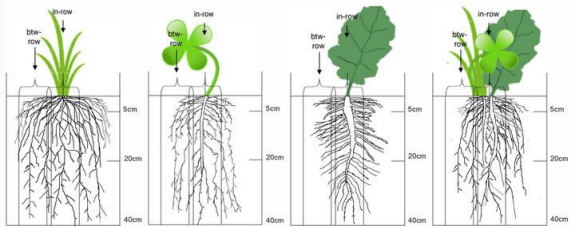
Minimising soil disturbance enables the soil surface plant materials/residue to persist.

Biological disturbance includes disturbance by browsing animals (eg, wallabies and pigs) that reduce soil cover and below ground biomass. Physical and chemical disturbance occurs from tillage burying crop residues and over stimulating microbial breakdown and excessive carbon release into the atmosphere.



3. Plant Diversity

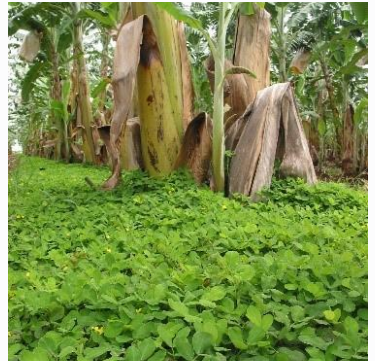
Plant diversity = root diversity.
Feeds carbon to the soil.
Habitat for soil biology.
Cycles nutrients.



4. Continual Living Plant Root

Feeds carbon to the soil, which is exchanged for nutrients for plant growth.

Aids soil aggregate formation, which reduces compaction and increases water infiltration (soil air and water spaces).



5. Livestock Integration

Ideally, livestock integration balances soil carbon and nitrogen ratios by converting high carbon forages to low carbon organic material and reducing nutrient transport from the soil. It's not always possible!

Is this an option? Or is it a health risk?

