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# SOIL HEALTH TRAINING

ACIAR SMCN-2016-111 Soil Management in the Pacific: Beqa Farmer Training  
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Ellen Iramu

# SOIL HEALTH

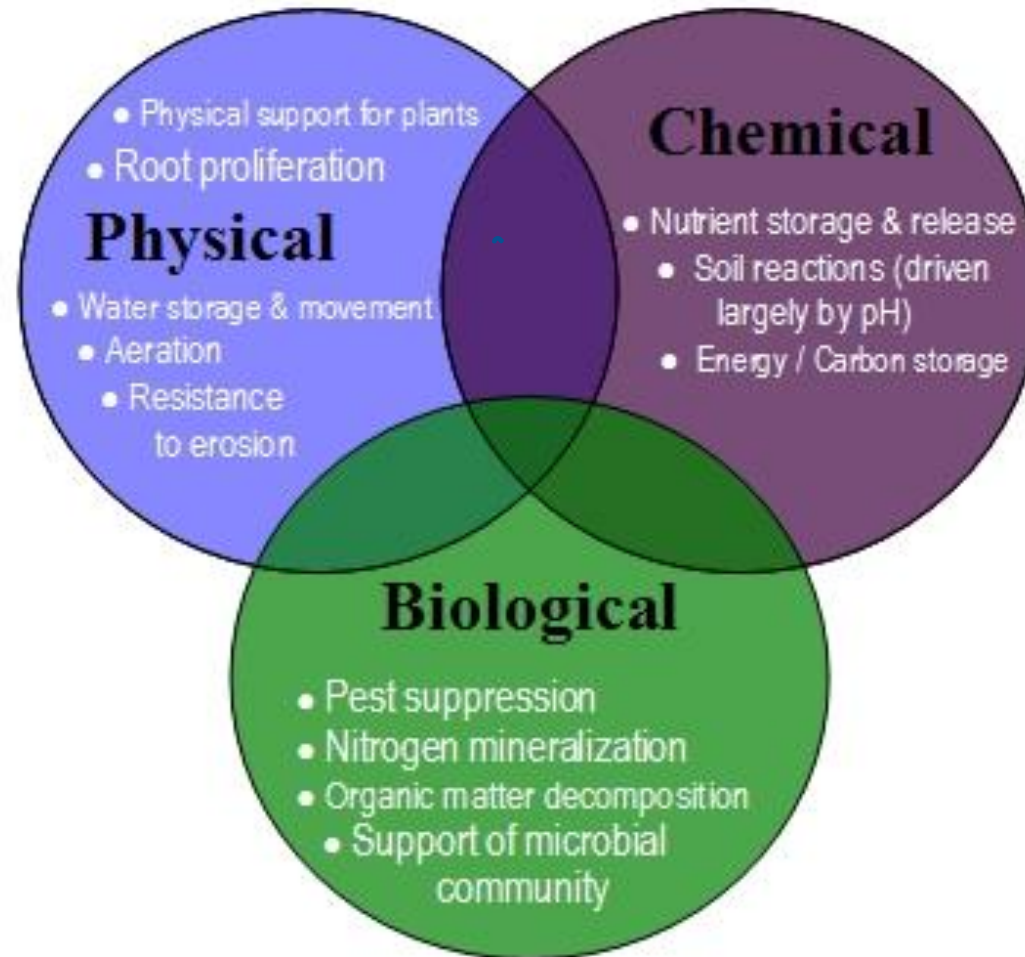
- The soil is alive, it should be treated as living medium
- Farmers and gardeners use soil for plant support
- Soil also stores and filters water, recycles nutrients, and provides habitat for animals



# WHAT IS SOIL HEALTH?

- The ability of soil to function
- Soil health depends on a balance of the soils physical, chemical and biological properties

# PHYSICAL, CHEMICAL & BIOLOGICAL PROPERTIES



# MANAGEMENT PRACTICES FOR HEALTHY SOIL

1. Keep the soil covered – layer of plant residue
2. Do not disturb the soil – avoid digging/ pesticide
3. Keep living roots growing – plant cover crops with crops to cover soil
4. Maximise diversity – grow different plants
5. Integrate managed livestock

## HOW TO TELL HEALTHY SOIL

- Feels spongy, cool and loose
- Looks dark with signs of life
- Smells sweet and earthy





# HOW TO KNOW UNHEALTHY SOIL

- Feels hard, warm and chunky
- Looks pale with no sign of organisms
- Smells metallic or sour



**“FEED THE SOIL TO FEED THE PLANTS  
AND  
THE PLANTS WILL FEED HUMANS”**





# SUSTAINABLE FERTILISER APPLICATION

- Use 4R Approach:
  - Right source: right (deficient) nutrient
  - Right rate: right quantity (amount) required
  - Right time: when the crop requires it
  - Right place: location where plant will use it





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THANK YOU