

Appendix 1: Soil Health Sort Cards

PHYSICAL FACTORS

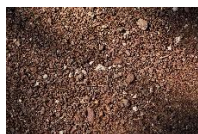
CHEMICAL FACTORS

BIOLOGICAL FACTORS

HUMAN ACTIVITY FACTORS

Soil Texture

- Ratio of sand, silt and clay
- Affects how water moves and nutrients are stored



Soil Structure

- How particles group into aggregates
- Better structure = better root growth and water movement



Compaction

- Caused by heavy machinery or animals
- Reduces pore space, air flow and root growth



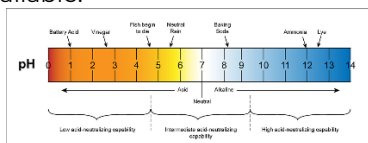
Water Retention

- Influenced by texture and organic matter
- Too little = drought stress, too much = root rot



pH

- Ideal range is 6.5–7.5
- Outside that range, nutrients become unavailable.



Nutrient Availability

- Soil must provide nitrogen, phosphorus, potassium and micronutrients.



Salinity

- High salt levels reduce water uptake by plants.



Organic Matter

- Improves structure
- Holds water
- Provides nutrients



Microorganisms

- Bacteria and fungi break down organic matter and help plants get nutrients.



Soil Biodiversity

- More living organisms = more resilient soil



Tillage

- Breaks up soil but can lead to erosion



Fertilizer Use

- Helps crops grow, but overuse harms microbes



Land Use

- Deforestation and development remove protective cover

