



Salt-affected soils

A global concern reducing agricultural productivity

Improper water management (insufficient water supply, poor water quality, reuse of brackish water and bad drainage systems)

HEALTHY SOILS

A healthy soil is able to sustain the productivity, diversity, and environmental services of terrestrial ecosystems.

SALINE SOILS

Saline soils have excessive levels of soluble salts. It can negatively impact or inhibit plant growth and can be toxic to life.

SODIC SOILS

Sodic soils have a high amount of adsorbed sodium. It leads to degradation of soil structure and inhibits plant growth.

Good and stable aggregates

Available water

Nutrient balance

Nutrient imbalance

Massive structure in the subsoil

Less biodiversity

Rich biodiversity

Less biodiversity

Nutrient imbalance

No contaminants

Less available water

Chemical symbols for nutrients: S (SULPHUR), Ca (CALCIUM), Cl (CHLORINE), Ni (NICKEL), Zn (ZINC), N (NITROGEN), Fe (IRON), Cu (COPPER), Mg (MAGNESIUM), Mn (MANGANESE), P (PHOSPHORUS), K (POTASSIUM), Mo (MOLYBDENUM), Na (SODIUM), B (BORON), and other elements.

Chemical symbols for salts: Ca^{2+} , SO_4^{2-} , Cl^- , HCO_3^- , Na^+ , Mg^{2+} , CO_3^{2-} .

Chemical symbols for sodium: Na^+ .

