

CONSERVATION-SOIL RETENTION CRITERIA

Soil is the loose upper layer of the Earth's surface where plants grow. Soil consists of a mix of organic material (decayed plants and animals), broken bits of rocks and minerals, air and water.

Soils are complex mixtures of minerals, water, air, organic matter, and countless organisms that are the decaying remains of once-living things. It forms at the surface of land – it is the “skin of the earth.” Soil is capable of supporting plant life and is vital to life on earth.

To remember what soil is made up of, think of the acronym IOWA

- I - inorganic materials (minerals, rocks)
- O - organic materials (decomposing leaves, insects and wood)
- W - water
- A – air

Erosion happens when soil is moved by water or wind from one place to another.

When judging soil retention, we keep in mind the elements that affect the soil to keep it from erosion and being healthy. Looking at the CCSS Factor (Climate, cover, slope, soil) allows us to maintain or build on a healthy layer of soil for plants to grow.

Organic vs inorganic matter-Organic matter, or humus, is made up of living organisms such as live plants and animals, dead plants and animals, and nutrients that have come from decomposed plants and animals. Inorganic matter can be compounds that contain carbon, sand, rock

Compaction-environmental, human impact.

Compacted soil is very hard to dig and isn't a comfortable place for plants to grow. Soil particles are packed close together, usually seen at the surface of the soil or at plow depth. Can be caused by machinery, rainfall, tillage, poor soil structure, foot traffic- people walking on soil and by animals, especially on confined pasture when soil is very wet.

Tillage

Plant or work the soil only when the soil conditions are right. Limit the amount of traffic on the field (least number of passes on the soil). Use suitable limited tillage equipment to prevent soil movement.