

SOIL HORIZONS

The layers of soil underfoot have developed over eras of glaciation, erosion, flooding and a thousand other circumstances. You've likely heard a lot about topsoil and bedrock, but what about the layers in between?

Soil layers run parallel to the soil surface and are called HORIZONS. Their physical, biological and chemical characteristics differ from the layers above and beneath.

Topsoil (O and A Horizons)

- Uppermost 5-10 inches of soil
- O Horizon is where we find plant litter
- Contains highest concentration of organic matter and microorganisms
- Most plant roots are found in topsoil
- Dark colour

Subsoil (B Horizon)

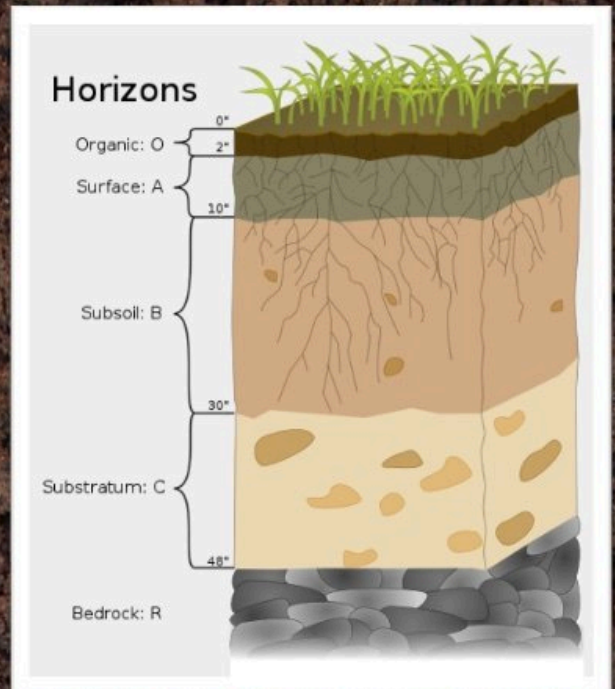
- Where many minerals accumulate
- Commonly reddish-brown due to iron content
- Often has a distinctly different soil structure than the horizons above
- Most garden plant roots infiltrate this layer

Substratum (C Horizon)

- Consists of partially weathered rocks that have not yet been affected by the conditions that created the layers above
- Contains calcium carbonate & other soluble minerals
- Tends to be a lighter colour than the layers above

Bedrock (R Horizon)

- Unlike C horizon's rocks and boulders, the bedrock layer is a massive layer of rock that makes up more of what we consider the earth's crust



In the scale of a human lifetime, soils are a **NON-RENEWABLE** resource. It takes **HUNDREDS** of years to create just **ONE INCH** of soil

RESOURCES

www.nrcs.usda.gov

www.ctahr.hawaii.edu