

S	M	T	W	T	F	S
31					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

SOIL Profile :

Def: The appearance of different layers or horizons forming one above the other in the cross section of soil is called soil profile.

pedon: The minimum three dimensional volume of the soil required to study the horizontal (layer) variability is termed as pedon.

Soil horizon: A soil horizon is a layer which is approximately parallel to the soil surface and has distinctive morphology, physical and chemical properties that are unlike those of adjoining layers.

An ideal soil

* An ideal soil profile consists of the following horizons :

1. 'O'-horizons: This horizon is mainly the above the surface of mineral matrix, mainly composed of fresh or partly decomposed organic matter.

Divided into 2 sub-groups -

- (i) O₁ (A₀₀): It is the uppermost sub-layer which contains freshly decomposed organic debris.
- (ii) O₂ (A₀): It is just below the O₁ layer, in which decomposition starts. In this layer some bacteria, fungi etc are present as well as the humus is formed in this layer.

2. A horizons :-
 These are the mineral horizons
 It is rich in organic matter and minerals.
 Two sub-divisions -

- (i) A₁ region :- It is dark and rich in organic matter. It is dark brown or black coloured.
- (ii) A₂ region :- This region light coloured and where mineral particles are large size with more sand particles.

3. B horizons :-
 It is the horizon of illuviation or deposit of materials leached from the top soil.
 It is also known as sub-soil. It has less biological activity with poor aeration.

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Thursday

The layer is divided into the following sub layers

- (i) B₁ layer :- Dark coloured heavy organic matter. The layer is harder and compact.
- (ii) B₂ layer :- Some minerals comes from upper layer make this layer compact and hard and impermeable. Deposition of clay make it more harder which is known as pan or orstein.
- (iii) B₃ layer :- This layer contains rock fragments.

4. C Horizon :- ~~It~~

The horizon contains irregular fragments of rock matter derived from either weathering of underlying rock or sedimentary deposit. Rich in moisture but has negligible biological activity.

T	W	T	F	S
2	3	4	5	6
9	10	11	12	13
16	17	18	19	20
23	24	25	26	27
30				

4. D horizon (R-Horizon) :
It consists of unweathered parent or bedrock, which underlies the soil. The horizon is impermeable to water.