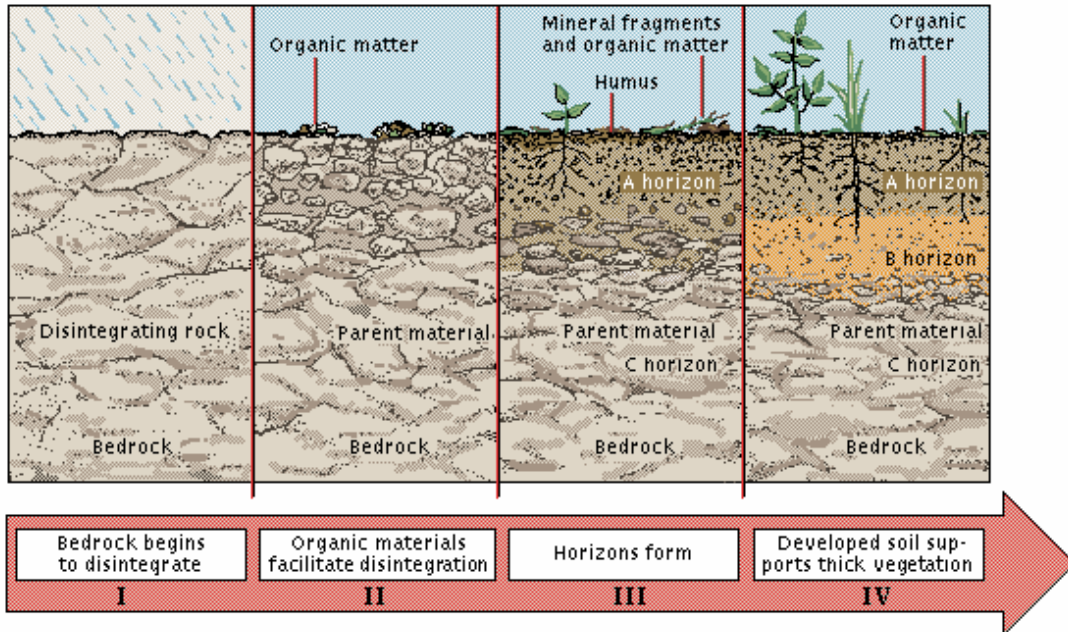


18. Analysis of selected soil types



Stages of Soil Formation

Soil formation is the process by which rocks are broken down into progressively smaller particles and mixed with decaying organic material. Bedrock begins to disintegrate as it is subjected to freezing-thawing cycles, rain, and other environmental forces (I). The rock breaks down into parent material, which in turn breaks into smaller mineral particles (II). The organisms in an area contribute to soil formation by causing it to disintegrate as they live and adding organic matter to the system when they die. As soil continues to develop, layers called horizons form (III). The A horizon, nearest the surface, is usually richer in organic matter, while the lowest layer, the C horizon, contains more minerals and still looks much like the parent material. The soil will eventually reach a point where it can support a thick cover of vegetation and cycle its resources effectively (IV). At this stage, the soil may feature a B horizon, where leached minerals collect.

<i>Soil type</i>	<i>Distribution</i>	<i>Characteristics</i>
<i>Black earths</i>	Warmer and drier areas	The most fertile, best for agricultural purposes
<i>Flood-plain soils</i>	Along rivers and river terraces, in lowlands	More fertile than black earth but rare
<i>Brown earths</i>	Deciduous forests (oak, horn-beam, elm), in lowland margins	Fertile
<i>Brown forest soils</i>	Deciduous forests (beech), on non-carbonate rocks (granite, sandstone)	Less fertile, forestry usage
<i>Rendzinas</i>	Deciduous forests, on carbonate rocks (limestone, dolomite)	Few nutrients
<i>Podzols</i>	Coniferous forests (spruce, fir, pine), higher mountainous areas	Infertile
<i>Gleys</i>	Waterlogged soils, under dwarf pines in high altitudes (mountains)	Infertile

Keywords

black/brown/flood-plain/brown forest soils, rendzinas, podzols, gleys, deciduous/coniferous forests, waterlogging, dwarf pines, fertile/infertile soils, forestry, agriculture