NET, IAS, State-SET (KSET, WBSET, MPSET, etc.), GATE, CUET, Olympiads etc. Various Types of Soils and Their Types Are Important Topics For

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Soils

The soils of India can he classified on the basis of several criteria. Indian Agricultural Research Institute (IARI) Delhi divides soils into eight groups.

- Alluvial Soil: The largest and the most important group is alluvial soil, which cover about 24% of India land surface. This type of soil is composed of sediments deposited by the mighty rivers in the interior parts of India and by the sea wave in the coastal areas of the country. The Great Plains of India running from Punjab to Assam possess rich alluvial soil. It is also found in Narmada and Tapti valleys in Madhya Pradesh and Orissa, Godavari valley in Andhra. Pradesh and Cauvery valley in Tamil Nadu. It also occurs in the deltas of Mahanadi, Godavari, Krishna and Cauvery rivers. Alluvial soils are generally deficient in nitrogen and humus and thus need repeated use of fertilizers. Such soils are suitable for growing all types of cereals, pulses, sugarcane, vegetables, oilseeds etc.
- Black Soil: The second major group is black soil. Ideal for the cultivation of cotton crop, it is frequently referred to as black cotton soil and covers large tracts of the Deccan plateau . This soil is also classified as Chernozem though locally known as regur soil. It covers large areas in Maharashtra, Gujarat, Madhya Pradesh, Karnataka, Andhra Pradesh and in Tamil Nadu. The black color is due to the presence of compounds of iron and aluminium. The soil is sticky when wet and its level of fertility is well known. Possessing high moisture retention capacity, black soil does not require much irrigation.
- Red Soil: The red soil, the third major group occurs mostly in the southern peninsula and extends up to Jhansi in the north, Kutch in the west and Rajmahal Hills in the east. This soil is made up of crystalline and metamorphic rocks and is rich in ferromagnese minerals and soluble salts but is deficient in nitrogen and humus and thus needs

fertilisers. It has a light texture and a porous structure. Red soil is most suited to growth of rice, ragi, tobacco and vegetables.

- Laterite Soil: Laterites and lateritic soil are the fourth group formed through the process of laterisation. They contain iron oxides which import a red to the soil. The soil occurs in the higher reaches of the Sahyadris, Eastern Ghats, Rajmahal Hills and other higher areas in the peninsular region. It can also be found on the lower lands in parts of Maharashtra, Karnataka and in many parts of Kerala, as well as pockets of Orissa, West Bengal and Assam Generally poor in nitrogen and mineral salts due to heavy leaching, it is suitable for rice and ragi cultivation if manured.
- Forest Soil: Forest soil is rich in organic matter and humus. It is found in t. he Himalayas and other mountain regions of the north, higher summit of the Sahyadris, Eastern Ghats, Karnataka, Tamil Nadu, Kerala, Manipur, Jammu and Kashmir and Himachal Pradesh. Crops like tea, coffee, spices and tropical fruits are grown on this type of soil.
- Arid and Desert Soil: It is found in north western India. It covers the entire area west of the Aravallis in Rajasthan and parts of Haryana, Punjab and Gujarat. It is rich in phosphates but poor in nitrogen and proves quite fertile if irrigated.
- Saline and Alkaline Soil: Soils in many parts of the arid and semi-arid areas of Rajasthan, Punjab, Haryana and Uttar Pradesh. Bihar have saline and alkaline effervescences mainly of sodium, calcium and magnesium. These soil are called reh or kallar or usar and are infertile. The salts are usually confined to the upper layers and soil can be reclaimed by improving drainage.
- Peaty and other Organic Soils: Peaty soils contain large accumulations of humus, organic matter and soluble salts. These soils are highly saline and are deficient phosphorus and potash. Marshy soil occurs in regions of Orissa, West-Bengal and Tamil Nadu. They are also found in central and. north Bihar and in Almora district of U P