Salic Horizon

Saline horizon with an accumulation of salts

Concept and Background Information

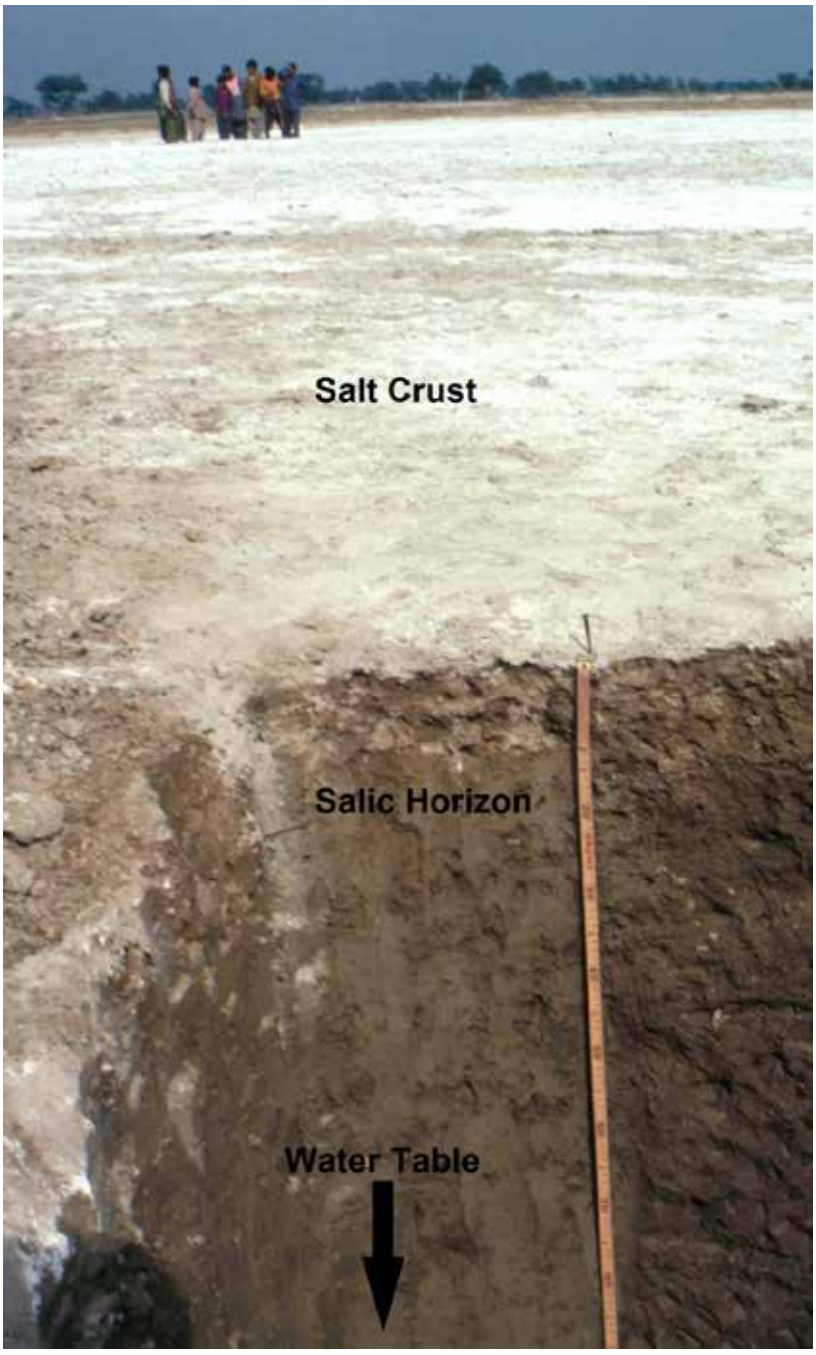
The salic horizon is a saline horizon in which salts more soluble than gypsum have accumulated. Halite is one of the more common salts in salic horizons, but other salts also occur. The salic horizon may be either in the subsoil (where precipitation leaches salts downward) or at the surface (where salts are wicking upward from a water table within the profile). Where this horizon is at the surface, there may be a polygonal pattern of slightly elevated ridges caused by surface heaving as the salt crystals accumulate. In the laboratory, the salt concentration is evaluated by measuring electrical conductivity of a saturated paste extract. The level of salt concentration may vary seasonally as salts are partially leached during rainy periods and accumulate through evapotranspiration during dry periods.

Generalized Characteristics

1) Thickness is $\geq$ 15 cm.
2) For $\geq$ 90 consecutive days in most years:
    a. Electrical conductivity in a saturated paste extract (EC_e) is $\geq$ 30 dS/m, *and*
    b. Product of EC_e X horizon thickness (cm) is $\geq$ 900.

Common Horizon Nomenclature

Commonly used horizon nomenclature includes master horizon A or B combined with suffix z. Additional suffixes g, k, or y may also be used. Examples include: Az, Bzg, and Bzky.



A salic horizon has formed in the upper part of this profile due to upward movement of salts from the water table (below the view of the photo). The land surface is white due to the accumulating salt crust.

Back to Salic Horizon