

THE CHARACTERISTICS, DISTRIBUTION AND MANAGEMENT OF ALFISOLS: A REVIEW

Demsew Bekele & Beamlaku Alemayehu

*Research Scholar, Ethiopian Institute of Agricultural Research (EIAR), Adet Region Agricultural Research Center, Bahir
Dar, Ethiopia*

ABSTRACT

Alfisols are base-rich, timbered, mineral soils of sub-humid and humid regions. These are characterized by a light-colored surface horizon (ochricepipedon) over clayenriched; argillic (Bt) sub-surface horizon that is rich in exchangeable cations with base saturation of more than 35%. Alfisols from the soil science term Pedalfer implies aluminum and iron. Alfisols are forest soils that have relatively high native fertility. Alfisols typically exhibit well-developed, contrasting soil horizons (layers) depleted in calcium carbonate but enriched in aluminum- and iron-bearing minerals. Below the surface horizon lies a region with significant accumulation of translocated (migrated) layer silicate clay. This region, called the argillic horizon, is characterized by a relatively high content of available calcium, magnesium, potassium, and sodium ions. These soils have high native fertility. Kind of soil management causes changes in the soil characteristics and can affect agricultural yield. Physical and mineralogical properties of the soil proved an effective supplementary method for assessing correlations between the soil physical and mineralogical properties.

KEYWORDS: *Alfi Sols, Management, Sub-Humid and Humid*

Article History

Received: 16 Sep 2020 | Revised: 19 Sep 2020 | Accepted: 26 Sep 2020
