

Impact of agriculture on chemical properties of soils on basalt from Mindanao, the Philippines

ABSTRACT

Uncultivated and cultivated soils from Mindanao, the Philippines were sampled and studied to determine the impact of agriculture on their chemical properties. The results of the study showed that cultivated soils, having lost some organic matter due to oxidation, have a lower CEC and a higher point of zero charge (pH_z). The capacity of these soils to retain cations has decreased to a certain extent. In the subsoils of both soil types, there is a tendency for soil pH to coincide with p_H, reflecting development of positive charge in the soil of that zone. The sum of exchangeable bases and Al (ECEC) is found to be a good estimate of the EC of the soils.

Keyword: Cultivated and uncultivated soils; CEC; pH_z; Organic matter