

## Research Article

# Fertility status of soil under forest and cultivated land use system of Nagaland: A comparative study

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### Summary

Forty-eight soil samples were collected from 0-15 cm from each forest and cultivated areas of 12 different places of Nagaland. Nutrients availability status of N, P and K found to be ranges under low to medium. Forest soils contained higher values of available N, organic carbon, whereas available P and K were found to be more in cultivated soils. Value of available S was also found to be higher in forest soils and in both the states and value of available B was found to be very low. Soil respiration in both land use showed ideal to high soil respiration rate, average soil respiration rates exhibited higher in cultivated land than the forest in both the states. Soil pH was found negatively correlated with organic carbon, available N, K, exchange acidity and lime requirement. With soil organic carbon, positive correlation was found with available N, K, exchange acidity and lime requirement, but negative correlation with total acidity. The results concluded that types of soil and land uses practices were responsible for the varying soil inherent properties. The organic carbon content of the forest soils of Nagaland varied from 1.59 to 2.76% and average value recorded was 2.21%. The average value of pH in forest and cultivated was found 4.9, whereas, average value of EC was found in forest and cultivated soil 53.5 and 52.6  $\mu\text{S}/\text{m}$ , respectively.

**Key words :** Nutrients status, Acidic components, Physico-chemical properties

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