



## Effect of land uses on soil dehydrogenase activity in recent alluvium

Aparna Sinha • Prerna Kumari  
• Pinky Prasad

Received : December 2010  
Accepted : November 2011  
Corresponding Author : Pinky Prasad

**Abstract :** *The present study aimed at the assessment of soil dehydrogenase activity influenced by different land uses under recent alluvium, may be a good indicator of microbial activity in the soil. The pH, electrical conductivity (EC), organic carbon and available nitrogen were also determined. Soil samples at 0-15 cm depth were collected from the rice-wheat fallow, maize-wheat fallow, mango-orchard and bamboo cultivated field in south Bihar. The dehydrogenase activity was estimated by the reduction of triphenyl tetrazolium chloride (TTC) to formazan after incubating it at 37 °C for 24 hours in dark. In bamboo cultivated field, the dehydrogenase activity was highest with an average of 39.4 mg triphenyl formazan (TPF) activity g<sup>-1</sup> soil day<sup>-1</sup> due to non-tillage and litter accumulation. The mango orchard showed second*

---