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Soil fauna in rainfed paddy field ecosystems: their role in organic matter decomposition and nitrogen mineralization

Soil organisms provide many ecological services, such as litter decomposition and N mineralization. Agriculture based on rainfed paddy fields in Central Java, Indonesia, with little fertilizers input suffers from soil degradation. The management of soil biological factors can help to prevent the degradation of soils. The enhancement of such communities through a modification of either the distance of the bunds that separate the rice fields or the crops cultivated on rice bunds has been studied in the region. This study shows that the shorter bund distance tended to increase soil fauna population. This effect was more pronounced when the bund was cultivated with crops.