

COMMUNITY ANALYSIS OF PLANT AND SOIL NEMATODES IN JUTE-RICE CROPPING SYSTEM IN WEST BENGAL

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Abstract

Jute followed by rice is the most common crop sequence adopted by the growers in West Bengal. Community analysis of plant and soil nematodes revealed the *Meloidogyne graminicola* ranked first in prominence value followed by *Hirschmanniella* spp., in rice whereas in jute, *M. incognita* was predominant followed by *Hoplolaimus indicus* and *Rotylenchulus reniformis*. Other plant parasitic nematodes genera were also prominent member of nematode community but less important as plant parasites of crops. Among the fifteen species encountered in jute-rice cropping system, *M. graminicola*, *Hirschmanniella oryzae*, *H. mucronata*, *Hoplolaimus indicus*, *Pratylenchus coffeae*, *P. brachyurus* in rice and *M. incognita*, *M. javanica*, *R. reniformis* and *P. coffeae* in jute, were thought to be potential plant pathogens to cause substantial yield losses. Saprozoic nematodes were the most prominent member of the soil nematode community but their role in crop production system is still not clearly known.