

## **Nematicidal activity of tender coconut husk anaerobic leachate against plant parasitic nematode *Meloidogyne incognita***

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**ABSTRACT :** Tender coconut (*Cococs nucifera*) husk anaerobic leachate kept as raw and treated under artificial UV for five minutes was separately screened for their *in vitro* nematicidal activity against juveniles of *Meloidogyne incognita*. The juveniles were treated with 1.37, 2.75 and 5 mg/ml of raw and UV treated leachate for 48h. Raw untreated husk leachate show promising percentage mortality rates of 42, 70 and 90%, respectively for the concentrations 1.37, 2.75 and 5 mg/ml. These results were significantly higher than that exhibited by UV treated leachate. Estimation of total phenolic content and reducing power activity of raw leachate also show significant difference when compared with UV treated leachate. Quantitative estimation of total phenolics in raw leachate after 20 days of anaerobic leaching was  $542\pm 0.63$   $\mu\text{g}/100\text{g}$  which statistically ( $P<0.001$ ) reduced to  $366\pm 0.53$   $\mu\text{g}/100\text{g}$  after five minutes of UV treatment. These *in vitro* results apparently highlighted the notion that scientific validation of many traditional plants is the need of the future. The present study exposes the anthelmintic potential of *Cococs nucifera* husk anaerobic leachate which has been used traditionally for various ailments. Further research is required to isolate and identify the active phytochemicals, and to improve methods of plant extraction that will be readily adaptable for use by rural communities against helminthosis.

**Key Words :** Coconut (*Cococs nucifera*) husk, nematicidal, phytochemicals, root-knot nematode, *Meloidogyne incognita*, Leachate.