

Research Article

Anti-nematic Activity of Lion's mane and Oyster Mushroom Against Root-knot Nematode (*Meloidogyne incognita*)

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Abstract

In order to isolate pure cultures, the fruits of the Lion's mane (*Hericium erinaceus*) and Oyster (*Pluerotus sajor-kaju*) mushrooms were grown on the appropriate substrates. In order to evaluate the antinematicidal activity on egg hatching inhibition *in vitro*, Lion's mane and Oyster mushroom pure culture filtrates were extracted and made at three different concentrations (0.5, 1.0, and 1.5%). Overall results showed that each concentration examined had an impact on *M. incognita*, with varying degrees of egg hatching inhibition and juvenile mortality. Additionally, a higher rate of juvenile death was seen the longer the exposure to Lion's mane mushroom extract. The greater concentration (1.5ml) of Lion's mane mushroom culture extract demonstrated effective antinematicidal activity against *M. incognita* among the three different concentrations of the two different mushroom species studied. After 72 hours of exposure, it was discovered that both mushroom culture filtrates had antinematicidal activity against egg hatching with varying degrees of egg hatching inhibition. In comparison to the control (20.41%), the largest egg hatching inhibition (89.18%) was found in the Lion's mane at 1.5 per cent.

Key words: Egg hatching, juveniles, *Meloidogyne incognita*, mushroom extracts

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