

## **Nematocidal Effects of Laurus Nobilis Essential Oil against Gastrointestinal Nematodes.**

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**Abstract :** Herbal extracts are of particular interest to the drug industry; essential oil with significant anthelmintic activity has the potential to be used as an alternative to conventional chemical drugs. In the present study, we describe the chemical profile of Laurus nobilis essential oil (EO), the in vitro anthelmintic activity of laurel oil against Haemonchus contortus and its in vivo anthelmintic effect against the murine helminth parasite model Heligmosomoides polygyrus. The chromatographic profile of L. nobilis (EO) extracted from the leaves of L. nobilis has shown the presence of monoterpenes 1,8-cineol (Eucalyptol) (29.47%), D-Limonène (18.51%) and Linalool (10.84%) in high fractions. The in vitro anthelmintic potential was expressed by an ovicidal effect against H. contortus egg hatching with an inhibition value of 3.23 mg/mL and 87.5% of immobility of adult worms after 8 hours of exposure to 8 mg/mL of L. nobilis EO. Regarding the in vivo anthelmintic potential, L. nobilis (EO) at 2400 mg/kg completely eliminated the egg output of H. polygyrus after seven days of oral treatment, together with a 79.2% of reduction in total worm counts. Based on the obtained funding, L. nobilis EO showed promising in vitro and in vivo anthelmintic capacities against gastrointestinal parasites.

**Keywords :** lauris nobilis, anthelmintic, haemonchus, pylogyrus

**Conference Title :** ICPPNMNPSM 2023 : International Conference on Plant-Parasitic Nematode Management and Nematicidal Plant Secondary Metabolites

**Conference Location :** Paris, France

**Conference Dates :** July 10-11, 2023