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Poster Presentation

**Impact of *Lantana camara* leaf extract on nematode development *in vivo*
and *in vitro* conditions**

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Abstract

Plant parasitic nematodes are important parasites to reduce plant growth and development. Root knot nematodes, belonging to *Meloidogyne* genus, are important group of plant parasitic nematodes in terms of damage rate to plant. Among the controlling methods for root knot nematodes, biological substance has been increased recently because of environmentally friendly. It is thought that leaf extracts can be used in nematode management. However, studies of the application of *Lantana camara* leaf extracts against root knot nematodes is limited. Therefore, this study was conducted to determine the effect of leaf extracts to control a root nematode species *Meloidogyne incognita*. For this aim, different dilution concentrations of leaf extracts were applied to the nematode *in vivo* and *in vitro* conditions and plant growth and nematode parameters were observed. Results revealed that the highest larvae death was detected in 15% of leaf extract dilutions but lowest larvae death was in 1% of leaf extract dilutions *in vitro* conditions. *In vivo* results revealed reducing plant height in the most of the dilutions. Nematode galling index rating was not change compare to non-treated plots. The nematode reproduction rate was reduced in all dilutions of *Lantana camara*. It can be concluded that all dilutions rate may reduce nematode populations and would be a promising application against nematodes but open field experiments are needed.

Keywords: *Lantana camara*, *Meloidogyne incognita*, leaf extract, nematode