

Summary**BIOLOGY AND POPULATION DYNAMICS OF TEA ROOT LESION
NEMATODE (*PRATYLENCHUS LOOSI*) IN IRAN****A. SERAJI, E. POURJAM*, Z. TANHA MAAFI and N. SAFAIE**

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Biology and population dynamics of tea root lesion nematode, *Pratylenchus loosi*, as the most important crop loss agent of tea plant in Iran was investigated in natural conditions for five years in one of the infested tea gardens and also were studied in laboratory. According to this study, tea root lesion nematode, as migratory endoparasite, parasitises feeder and hairy roots of tea as soon as soil temperature reaches to 15°C or above. Juvenile stages and adult females are infectious agents, the overwintering is in form of egg in soil or in feeder roots, although can overwinter in form of Ju or adult stages. Laboratory studies in culture medium (carrot discs) showed that optimum temperature for reproduction in *in vitro* was 20-21°C and for egg hatching in 2 % water agar was 17°C. Complete life cycle of this species in lab was 46-49 days which hatching of egg was 15-17 days, Juvenile stages were 15-16 days and adult nematode was 16 days. Five years study of population dynamics showed that *P. laosi* has 3-4 population pick per year in May, July, September and November or March (depends on environmental condition). Regression analysis of population dynamics and mean soil temperature and rainfall for five years showed significant relationship between environmental factors and population densities. Soil temperature appears to have more important role than rainfall.

Keywords: Root lesion nematode, Tea, *Pratylenchus loosi*, Biology and Population dynamics

See Persian text for figures (Pages: ۹۸-۱۱۵)

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