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Seasonal dynamics of phytonematodes associated with olive cv. Toffahi affected by soil temperature and moisture

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Abstract

Seasonal dynamics of the reniform nematode, *Rotylenchulus reniformis* in soil and roots and the spiral nematode, *Helicotylenchus* sp. in soil of olive (*Olea europaea* L.) cv. Toffahi over one year were analyzed. Population densities of both nematodes reached higher populations in spring with the onset root growth through summer and winter and significantly ($p \leq 0.05$) declined in autumn revealing that these nematodes were negatively correlated with the prevailing soil temperature (°C) and were positively correlated with percentage soil moisture at different sampling months and seasons. Correlation coefficients (r) were calculated to ascertain these relationships.