ABSTRACT

Sodom apple (*Solanum incanum* L.) fruit extracts were tested for their potential to manage root knot disease caused by *Meloidogyne* spp. in chilli (*Capsicum annuum* L.). The effect of sodom apple fruit extracts at different concentrations on the plant height, leaf number, stem diameter, number of galls, and nitrogen and phosphorous levels in chilli infected with root knot nematodes was evaluated. The efficacy of sodom apple fruit extracts against the root knot nematodes was tested under glasshouse and field conditions. All treatment effects were determined by one-way ANOVA using SAS program (Version 9.3). Evaluation after treatment of plants with sodom apple fruit extracts showed that there was a significant difference ($P = 0.05$) in plant heights, number of galls, leaf number, and nitrogen levels in chilli. In the field experiment, the highest mean heights were recorded in the 100% treatment (T1) during the first and third reading. Chilli plants that were treated with the sodom apple fruit extract had a significantly high number of leaves. In the greenhouse experiment, the positive control (T6) had the highest mean heights followed by the 50% treatment (T2). Our research results showed that sodom apple fruit extracts have nematicidal compounds with a potential to be used in the management of chilli root knot nematodes.