

## ABSTRACT

Experiments were carried out in the laboratory to evaluate the effects of aqueous extracts of leaves, seeds and roots of *Datura stramonium* at different concentrations on mortality of *Globodera rostochiensis* juveniles. Volumes of 5 mL of the extract at 100 (crude extract), 50, 25 and 12.5% dilutions were dispensed separately into Petri dishes containing 20 freshly hatched second stage juveniles (J2s) of *G. rostochiensis*. Juvenile mortality was recorded at 24, 48 and 72 h intervals. The treatments were replicated four times. Petri dishes were arranged in a Completely Randomized Design (CRD). Analysis of Variance (ANOVA) was used to test for the differences (means) among the extracts and the dilutions. The results showed that the crude extracts (100%) of all extracts and 50% dilution of roots and seeds caused 100% mortality after 24 h exposure. This study established that aqueous extracts of *D. stramonium* has the potential for use as a bionematicide. Further experiments are required to confirm their effect under cropping conditions. There is also a need to analyze the phytochemicals of the plant which cause nematode mortality.