

ABSTRACT

Ticks are acari responsible for severe losses in the livestock industry. This study evaluated the larvicidal properties of aqueous crude extract of *Phytolaccadodecandra* against larvae of *Rhipicephalus appendiculatus*. Contact toxicity was used in the bioassay and mortality data was obtained at 6, 12, 24 and 48 hrs. The data obtained during bioassay was then subjected to probit regression analysis to estimate concentration dependent mortality for LC50 and LC90 values in mg/ml. The LC50 and LC90 were 17.3 (15.2-19.4) and 26.8 (23.3-34.4) mg/ml respectively. Phytochemical screening of aqueous extract revealed presence of saponins, steroids, flavonoids and terpenoids. The activity observed in this extract was attributed to the presence of saponins. The plant demonstrated no cytotoxicity against vero cells hence the extract was considered safe for use in controlling *R. appendiculatus* larvae infestation in livestock.