

Neem (*Azadirachta indica*) Oil as an Anthelmintic in Goats

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Abstract

Helminth infection is a major factor for reduced productivity in many small ruminant industries. In an attempt to control the helminth problem, chemical anthelmintics are often used widely for the purpose of prophylaxis and treatment of helminthes. Development of resistance towards common chemical anthelmintics due to frequent or improper usage necessitates the study of various plants for their potential anthelmintic properties. Further, there is a high demand for herbal products as an alternative to chemical anthelmintics. *In vivo* study was conducted to evaluate the efficacy of *Azadirachta indica* (Neem) oil which was obtained commercially against *Haemonchus contortus*. Twelve female Boer goats from a private farm were flushed with a commercial anthelmintic a month before the study and then they were equally divided into control (n=6) and treatment (n=6) groups. Faecal egg counts using the Modified McMaster technique and the FAMACHA score for assessing anemic signs were carried out weekly for six weeks. The result of faecal egg count showed that there was no significant reduction in the treated group indicating no difference between the control and treatment group. The present study indicated that giving neem oil orally had no effect on adult worms in the abomasums as reflected in the faecal egg counts. Further studies need to be done to reconfirm the effect of neem oil as an alternative anthelmintic in goats.

Keywords: anthelmintic, *Azadirachta indica*, *Haemonchus contortus*, goats