

**EFFECT OF TRADITIONAL VETERINARY  
PRACTICE: NEEM (*Azadirachta indica*) LEAVES  
AND TURMERIC (*Curcuma longa*) POWDER ON  
GASTROINTESTINAL PARASITISM IN GOATS**

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by

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## ABSTRACT

Anthelmintics have a key role in preventing goat parasitism though high cost and reported anthelmintic resistance in parasites that limit the usage in rural goat farming. Since parasitism can reduce goat performance, overcoming the limitations of western medicine, traditional veterinary medicine (TVM) has re-emerged. However, few literature are available on effectiveness of TVM on goat parasitism. Hence, study was conducted to identify the effect of Neem (*Azadirachta indica*) leaves and Turmeric (*Curcuma longa*) powder against goat GI parasites. Traditional veterinary practitioners were interviewed to collect information TVM used in goats. Animal trial was conducted for two treatments; western medicine (WM) and traditional medicine (TM). Local goats (n=20) in a single farm with equal body weight (BW), 3-6 months old, with high faecal egg counts (FEC) were selected. At day 0, goats in WM and TM were dewormed with albendazole (10 mg/kg BW) and TVM prepared from *Azadirachta indica* (3 g) + *Curcuma longa* (1 g), respectively and FEC were measured for 15 days by modified McMaster counting technique. Log transformed FEC were analyzed by repeated-measures analysis in MIXED procedure of SAS 9.2. The treatment effect on FEC is not significant ( $P>0.05$ ) reflecting similar response in WM and TM. However, the effect of time and treatment $\times$ time on FEC is significant ( $P<0.05$ ). Since FEC have been reduced with time after deworming, both treatments are effective against GI parasites. Least square means of FEC in WM ( $41.34\pm 11.58$ ) and TM ( $53.53\pm 14.99$ ) at day 15 is low. Further, interaction effect revealed during day 0-3, WM has significantly lower FEC compared to TM due to rapid reduction of FEC in WM ( $P<0.05$ ) and day 7 onwards, both groups have statistically similar FEC due to rapid reduction of FEC in TM. In conclusion, TVM is also effective against goat GI parasitism as anthelmintics. Findings can be strengthened by identifying the active compounds in *Azadirachta indica* and *Curcuma longa* and effective dose of the active compounds.

Traditional Veterinary, Anthelmintic, Faecal Egg Count