Use of locally available leaf meals for improving growth and controlling parasitic infection in goats of hilly areas in Jammu and Kashmir, India

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Gastrointestinal parasitism especially *Haemonchus contortus* is a major problem in goat production worldwide, these parasites cause diarrhea, anemia, reduced weight gain and thus result increased production costs. The locally available fodder trees like Kikkar (*Acacia nilotica*), Amla (*Emblica officinalis*), Jamun (*Syzygium cuminii*), Dhaman (*Grewia optiva*), Mango (*Mangifera indica*) found in hilly areas of Jammu and Kashmir can be used in complete feed blocks to meet the protein deficiency as well as control the parasitic load of the livestock. Crude protein content of these leaves were 20.00±0.44, 10.58±0.54, 11.02±0.11, 25.56±0.48, 10.62±0.57, respectively. The study was carried out to assess the effect of complete feed blocks and condensed tannins (CT) supplementation through leaf meal mixture (LMM) on feed intake and fecal egg counts in *Haemonchus contortus* infected goat. 30 goats were randomly divided into three groups (C, T1 and T2) of 10 animals in each group in a completely randomized block design for a period of 3 months. T1 group was supplemented with complete feed blocks without any leaf meal mixture whereas T2 group was supplemented with leaf meal mixture at 1.5%. Body weights were recorded at day 0 and then 15 days interval for a period of 90 days. The fecal samples were collected at 0, 7th, 15th day and thereafter at 15 days intervals for a period of 3 months for the assessment of feed intake, body weight changes and *H. contortus* loads. Feed intake and weight gain was almost similar in both the treatment groups T1 and T2 but were comparatively better than the controlled group with normal feeding. The mean fecal egg counts was significantly (P<0.001) higher in T1 group as compared to T2 group. It may be concluded that dietary supplementation of CT (1.5%) through LMM improved the overall growth and production and thus can help poor hilly farmers in making goat farming an economically viable enterprise. Supplementation of CT through leaf meal mixture could be used as an alternative sustainable method to control *H. contortus* infection.

Biography

Mandeep Singh Azad is currently working as a Scientist in Sher-e-Kashmir University of Agricultural Sciences and Technology of Jammu from last 7 years. He has an experience of working in remote areas with specially small and marginal farmers. He has done his Masters from National Dairy Research Institute in Animal Genetics and Breeding. He has made around 100 research contributions in the form of research papers, popular articles and abstracts in international and national journals. He has also published 3 books with international and national publishers. He is mainly working for transfer of technology from labs to farmer’s field. He is a member of various organizations related to animal sciences and agriculture.

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