

Equine helminths: prevalence and associated risk factors in Gamo Gofa Zone, Ethiopia

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Equines are indispensable in reducing the huge burden on children and women and income generation. On the other hand, minimal attention is given to improving their health and welfare. This study examined the prevalence and associated risk factors of helminth parasites of equine in the Gamo Gofa Zone. A cross-sectional study was employed from June 2019 to March 2020. The study districts and *Kebeles* were selected purposively based on agroecology whereas selection of study households and animals were performed based on simple random sampling techniques. Identification of nematode, trematode parasite ova and larvae of *D. arnfieldi* were done by floatation, sedimentation, and Baermann techniques respectively. Descriptive statistics and logistic regression was applied to estimate the prevalence and association of risk factors with helminth parasites. The overall helminth parasite prevalence in the study area was 90.4%, 425/470 (95% [CI], 87.16-92.9). The prevalence of Strongyle, Fasciola, *O. equi*, *P. equorum*, *D. arnfieldi*, and mixed parasite infections were 65.1%, 21.7%, 17.4%, 34%, 34%, and 58.1%, respectively. Infections from Fasciola species and *D. arnfieldi* infection were four ([AOR], 4.4; 95% CI, 2-9.4) and two times (AOR, 2; 95% CI, 1.1-3.6) respectively more likely occur in donkeys than in mules. The occurrence of Strongyle species in midland agroecology was two times (AOR, 2.6; 95% CI, 1.4-4.7) more likely than lowland agroecology. The present study identified diverse species of equine helminth parasites that necessitate urgent disease control and prevention measures.

Key words: Horses; helminths; prevalence; risk factors