



# Deadly Gastrointestinal Parasites as a Productive Hazard of Sheep



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## Mini Review

Sheep are susceptible to endoparasitic nematodes, roundworms, tapeworms, and coccidia which are very pathogenic [1]. This is suggested to be due to a combination of several factors such as climate, energy level of the diet, age, number of ingested larvae and sheep general health [2,3] reported that losses of livestock and income through death and condemnation of carcasses and viscera is the most direct and readily appreciated social and economic consequences of parasitism in tropical and subtropical areas. Helminthiasis, specially gastro-enteritis constitutes a serious cause of limitation to the productivity of small ruminants throughout the world due to the associated morbidity, mortality, cost of treatment and control measures [4]. In Ethiopian highlands, crossbreeding of indigenous Menz sheep with exotic Awassi sheep had problems of high mortality of the distributed rams due to internal parasites [5]. Gastrointestinal parasitic infection associated with reduced appetite, poor weight gains, diarrhea, and death [6]. Researchers have shown that poorly nourished animals are more susceptible to infection with parasites. This could be due to a lack of overall protein and energy or a poorly balanced diet, deficient in minerals [1]. Part of the severity comes due to the fact that many larval stages can survive for a relatively long period of time in the dehydrated stage and once moistened can re-hydrate and become motile again [7]. The female's extraordinary output of eggs is partly responsible for the explosive nature of outbreaks, especially in favorable weather conditions [8]. Trichostrongyles are associated with extensive damage to the duodenal mucosa and with signs of generalized enteritis, including haemorrhages, oedema and plasma protein loss into the intestinal lumen, and subsequent hypo-albuminaemia and hypo-proteinaemia [9]. The feeding and migratory activities of these parasites are direct causes of production loss, because they remove blood and nutrients and cause tissue damage. Cestode parasites cause disease through the development and space-occupying nature. Although, Edwards, (2005) stated that cestode tapeworm parasite, *Monezia expansa*,

which parasitize sheep as its final host, passively absorbs nutrients from the intestinal digesta and has few, if any, adverse effects on productivity, It still causes production loss, due to the considerable cost incurred by its treatment and management. On the other hand, [10] stated that nematodes are more serious in the main sheep-raising areas [11]. Stated that sheep gastrointestinal infection causes severe reduction in daily weight gain and demonstrates awful food conversion. Gastrointestinal parasites could cause mortality, stunted growth, unthriftiness and partial or complete condemnations of the carcasses at the slaughterhouses [12]. Parasitologists have mainly been concerned with understanding the biology of the host-parasite system. Parasites considerably and harmfully influence host life-history characteristics and vice versa [13]. There is unarguable evidence that parasites are progressively becoming resistant to all of the major chemical compounds used in the battle against them [14]. Repeated treatments to the same type of drench selects these resistant worms until they make up a significant proportion of the worm population [15]. This has obviously been necessary for the logical development of measures for the prevention and treatment of parasitic diseases. However, control procedures, based on epidemiological principles, have seldom been tested in the context of realistic systems of production [16]. In Sudan, it is difficult to practice the method of controlling internal parasites depending on rotational grazing [17]. Accordingly, helminth control depends completely on the use of anthelmintics. However, the efficacy of these drugs has been reduced, because of resistant nematodes strains [18,19] was the first scientist to conduct a search about injectable Ivomec which exhibited 100% efficacy against gastro-intestinal nematodes of naturally infected sheep in Sudan [20-23].

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