

Prevalence of Gastrointestinal Parasites in Goats of Ahmednagar district of Maharashtra

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Abstract

Helminth parasites of digestive system of goats in Ahmednagar District of Maharashtra were studied during the period January 2009 to December 2009. For these 400 faecal samples of goats from different villages were collected. Out of 400 samples 251 were positive (62.75%). In rainy season, out of 150 faecal samples examined 116 were positive (77.33%), while in winter out of 120 samples examined 73 were positive (60.83%) and in summer out of 130 samples examined 67 were positive (51.53%)

Keywords : Prevalence, Gastrointestinal, Parasite, Goat

Introduction

Goats and sheep are the important source of animal protein. They are primarily useful for meat & wool production. They also produce a considerable amount of manure, which is of special importance in those areas where cattle are of lesser importance (Nawathe et al., 1985).

Parasitic infections of sheep & goats are major factors responsible for economic losses through reduction in productivity and increased mortality. Parasites cause the animals to be unthrifty which may include the loss of weight, low birth weights and difficulty in kidding. Due to parasitism, the animals become susceptible to other health problems which can lead to death. Goats harbour a variety of gastrointestinal parasites that affect the growth as well as production of animal. Many researchers have reported the parasitic infections in goats in India (Thapar, 1956, Gupta., et al., 1987, Saha., et al., 1996, Pathak et al., 2008).

The present study was undertaken to assess the prevalence of gastrointestinal helminth parasites in goats of Ahmednagar District of Maharashtra.

Material and Methods

In present work, the prevalence of gastrointestinal helminth parasites was recorded from different villages of Ahmednagar District (M.S.). Faecal samples of 400 goats collected from various places

during January 2009 to December 2009 in three different seasons viz. summer, monsoon and winter, for assessing seasonal fluctuations. Direct smear method was used to investigate the sample. Identification of eggs or cysts made on the basis of morphological features (Soulsby, 1982).

Results and Discussion

The present study revealed that, out of 400 samples examined 251 were positive (62.75%). In monsoon season out of 150 faecal samples examined 116 were positive (77.33%), while in winter season out of 120 faecal samples examined 73 were positive (60.83%) and in summer out of 130 faecal samples examined 67 were positive (51.53%).

The seasonal prevalence of gastrointestinal parasites shows higher prevalence in monsoon season (77.33%) followed by winter (60.83%) and summer (51.53%). Similar observations were made by Chavan et al. (2008) in goats at Nagpur. Climatic factors also influence the rate of larval movement (Croll, 1975) and higher rate of infection in rainy months may also be attributed to suitable molarity of salt present in soil, which is an important factor for ecdysis (Soulsby, 1982). Hawkins (1945) suggested that heavy rainfall lower the resistance of animals and this taken advantage by the infected larvae in establish heavy infection.

The specieswise prevalence of gastrointestinal

helminths is recorded in Table 1. The percentage of animals with different gastrointestinal helminth parasites species viz. *Haemonchus sp.* (24.25%), *Trichuris sp.* (18%), *Strongyloides sp.* (21.25%), *Moniezia sp.* (5.50%), and *Fasciola sp.* (9.25%).

Prevalence of *Haemonchus sp.* was significantly higher in all seasons. Thapar (1956), Nadakal (1961) and Patnaik et al. (1973) also recorded *Haemonchus sp.* as predominant parasite in sheep in hot plains of India. *Haemonchus* causes immune suppression (Tizard, 1992) which probably predisposed the animal towards secondary infection. The sexwise prevalence of helminth parasites of GIT shows higher prevalence in females (69.05%) than males (54.80%).

Table 1. Prevalence Of Gastrointestinal Helminths In Goats.

Parasites	Total Samples	Positive Samples	Prevalence (%)
<i>Haemonchus sp.</i>	400	97	24.25%
<i>Trichuris sp.</i>	400	72	18.00%
<i>Strongyloides sp.</i>	400	85	21.25%
<i>Moniezia sp.</i>	400	22	05.50%
<i>Fasciola sp.</i>	400	37	09.25%

Acknowledgement

Authors thanks with gratitude the UGC, New

Delhi for providing financial assistance and the Principal, M.J.S. Mahavidyalaya Shrigonda for providing the necessary facilities.

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