SEASONAL VARIATION OF HELMINTHIC INFESTATION IN GOATS IN ANAND DISTRICT OF GUJARAT

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ABSTRACT

The results of the present study revealed that monsoon season is most favourable for helminth infestation in Goat in Anand District of Gujarat. *Trichostrongylus* spp was recorded at peak followed by Trichuris spp

KEY WORDS : Season, E.P.G (Eggs per gram of faeces), *Trichuris*, *Trichostrongylus* and *Moniezia*

INTRODUCTION

Parasites are a major cause of health problems in goats. They 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, many of which are shared by both species. Among these, helminths are the most important gastrointestinal tract parasites that affect the growth as well as production of the animal. Gastrointestinal nematodes of Trichostrongylidae family are perhaps the most important parasites of small ruminants worldwide, causing significant morbidity and loss of production (Pawel *et al*., 2004). There are many associated risk factors influencing the prevalence of gastrointestinal helminthes including age, sex, weather condition and husbandry or management practices (Miller *et al*., 1998; Khan *et al*, 2009). The present study, was planned at Anand district of Gujarat to assess seasonal variation in the through faecal egg count in goats due to helminthic infestation.

MATERIALS AND METHODS

To ascertain the quantitative examination of the helminthic infestation in goats from various villages around Anand district of Gujarat a total of 639 faecal samples of goats of both sex and varying age were collected from July-2011 to June- 2012. The faecal samples were labeled and transported to the laboratory after noting gross observation (presence of gravid segments and immature or mature parasites. The faecal samples, which were positive for helminth Parasites, were subjected to egg count (eggs per gram of faeces; EPG) using modified McMaster egg counting technique (Coles *et al.,* 1992) and by Stoll's method of egg counting (Soulsby, 1986).

RESULTS AND DISCUSSION

The results presented in table 1 reveals overall 64.79 per cent helminthic infestation observed in Anand District of Gujarat. Further highest prevalence (81.64 per cent of the total positive was found during monsoon season followed by summer (63.46 per cent) and lowest during winter (48.07 per cent) . Species wise highest (42.75 per cent) prevalence of Trichostrongylus spp was recorded followed by Trichuris spp (26.18 per cent) and lowest occurrence (19.08 per cent) of Moniezia spp was recorded , also there was mixed infestation at about 11.35 per cent was found. From this study it is clear that monsoon season is most favourable season for helminth infestation and winter is least favourable . Similarly presence of highest EPG during monsoon season confirm our result

Seasons	Total F/S examined	Total positive	Number of faecal samples positive with EPG						
			Trichuris spp		*Trichostrongylus* spp.		*Moniezia* spp.		Mixed
			Percent Prevalence	Seasonal Average EPG	Percent Prevalence	Seasonal average EPG	Percent Prevalence	Seasonal intensity	Percent Prevalence
Monsoon	223	182 (81.64%)	**50** (27.47%)	**350**	**84** (46.15%)	**1350**	**27** (14.83%)	(+ + +)	**21** (11.53%)
Winter	208	100 (48.07%)	**29** (29.00%)	**250**	**36** (36.00%)	**1225**	**21** (21.00%)	(+ +)	**14** (14.00%)
Summer	208	132 (63.46%)	**32** (24.24%)	**250**	**57** (43.18%)	**1200**	**31** (23.48%)	(+ + +)	**12** (9.09%)
Over all	**639**	**414** (64.79%)	**111** (26.18%)		**177** (42.75%)		**79** (19.08%)		**47** (11.35%)

for both the species. Nwosu et al. (2007) and Khajuria et al. (2012) also reported higher Trichostrongylus spp EPC during Monsoon . Contrary to our findings Momin (1984) reported highest EPG of Trichuris spp in summer followed by monsoon and lowest in winter , we also reported lowest EPG during winter. Highest prevalence and highest EPG in the present study may be due to the condusive environment for hatching of the egg. Our reports also corroborate with the reports of Bulbul et al. (2011) and Pawade et al.(2011) .

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